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ABSTRACT

Eight papers concerning pre and inservice teacher preparation treat such topics as a behavioral approach to conducting and evaluating inservice training, the development and analysis of criterion in the evaluation of teacher preparation and certification, and group processes and personal interrelationships as they support humanistic education. Also discussed are activities and implications of inservice training in the Northern Virginia Title III (ESEA) Diagnostic and Resource Teacher Program, basic principles of behavior modification for teachers, a taxonomy of variables for training teachers in special education, motivation of teachers and efforts of the Cleveland Public Schools help teachers become fully operative, and the nature and educational needs of the crippled and other health impaired (COHI) population and implications for teacher preparation in the COHI area. (KW)

ED 052 399

# Exceptional Children Conference Papers:
# Pre and Inservice Teacher Preparation

Papers Presented at the
49th Annual International CEC Convention
Miami Beach, Florida
April 18-24, 1971

Compiled by
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# PREFACE

*Pre and Inservice Teacher Preparation* is a collection of eight papers selected from those presented at the 49th Annual International CEC Convention, Miami Beach, Florida, April 18-24, 1971. These papers were collected and compiled by The Council for Exceptional Children, Arlington, Virginia. Other collections of papers from the Convention have been compiled and are available from the ERIC Document Reproduction Service. Other collections may be found by consulting the Institution Index of *Research in Education* under Council for Exceptional Children or the Subject Index under Exceptional Child Education. Titles of these other collections are:

Deaf-Blind, Language, and Behavior Problems
Diagnostic and Resource Teaching
Gifted and Developmental Potential in Women
    and the Disadvantaged
Infantile Autism
Local, State, and Federal Programs
Physical Handicap
Specific Subject Programs for EMRs and TMRs
Trends and Issues in Special Education

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# A Behavioral Approach to In-Service *

Jerry A. Caster
Iowa Dept. of Public Instruction, Des Moines

## Objectives of this paper:

After reading this paper, you will be able to:

1. Express the rationale for evaluating in-service effectiveness.
2. State strengths and weaknesses of each of the methods presented for evaluating in-service effectiveness.
3. Formulate statements of agreement or disagreement with the rationale or evaluation methods presented.
4. Apply each of the methods of evaluating in-service effectiveness in an in-service meeting that you conduct.

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* Acknowledgement is given toJeffrey P. Grimes and Stanley E. Dublinske, Consultants, Division of Special Education, Iowa Department of Public Instruction, with whom a "Behavioral Approach to In-Service" was cooperatively initiated and has been developed since August, 1969.

# RATIONALE

In-service training is any planned personnel training activity carried out by an organization so that it can meet its goals more effectively and efficiently. In its simplest form, in-service training is one-to-one training that a teacher receives at the building level. A more complex form of in-service training is group training, e.g., staff preparation to implement a new approach such as team teaching. Generally, the large group type of activity is perceived as in-service training by educators and one-to-one or small group activity is not. However, in viewing in-service training, it does not matter if it involves a large or small number of participants or relies on instructional media or live presentation. The in-service format is secondary to the purpose, i.e., advancement of an organization toward its goals as a result of planned training of personnel.

Much energy has been and will continue to be devoted to in-service training in special education. The basis for this rests in three prevailing needs: (1) the need to prepare untrained personnel employed in special education; (2) the need to prepare regular personnel who serve handicapped children; and (3) the need to improve the skills of trained special educators because of new methods or new employment assignments. The purpose of in-service training in special education is to more effectively and efficiently serve handicapped children by having personnel prepared to carry out their assigned responsibilities.

There are few educators who have not received in-service training. The training may have been sponsored by the local school system, county system, state department of education, or instructional materials center. Far too often the result of the in-service training is that teachers, when queried about the activity, remark that a speaker was heard or curriculum was discussed. As the of evaluation, it is necessary that basic assumptions regarding in-service training be presented. A major assumption is that there must be a purpose for in-service that relates to the organization before in-service is conducted. If this is true, it only follows that the organization has a need to evaluate the in-service to see if intended outcomes were met. A second assumption is that responsibility for learning from in-service is shared by the presenters and participants. What is to be learned should be communicated to participants and they are accountable for working for mastery of those learnings. The third assumption is that the ultimate evaluation of in-service effectiveness must be based on application of skills and knowledge and not on knowledge gained. It does the organization little good if skills and knowledge are possessed but not applied in daily practice.

## METHODS OF EVALUATION

Resources, such as personnel time, materials, equipment, and space are allocated to in-service training activities to provide:

1. needed information
2. needed skills
3. combination of needed information and skills.

In each of the above situations some type of change is desired. The change is that personnel know something previously unknown, use new skills, or use skills previously possessed but not applied. To evaluate whether or not the desired outcome is accomplished, four methods of evaluation can be used. The evaluation method selected or used in combination with other evaluation methods is dependent on the desired outcomes of the meeting, existing constraints and limitations, and extent of evaluation possible.

purse strings of the community begin to draw closed, it may be difficult to justify released time for attending in-service meetings on the basis of "hearing a speaker" or "discussing curriculum." The requirement for accountability on the part of taxpayers and administrators may seem to be capricious until it is realized that released time is expensive. An in-service training program lasting one day, involving twenty-five teachers, and conducted by a local supervisor who has spent two full days in preparation would cost a minimum of $745.00. This includes staff salaries alone and excludes other costs such as equipment, materials, and other presenters.

This is not to imply that in-service training should be dropped from its historical position in education. On the contrary, using new knowledge disseminated through in-service training provides the major means for an organization to re-direct its energies toward established goals or newly adopted goals. Thus, in-service training should be taken seriously, with greater attention given to the outcomes that can be derived from it.

If in-service training in education is going to play a role in effective and efficient service to children it must receive the support of administrators and taxpayers. To obtain needed support it is imperative that the outcomes from in-service training activities be related specifically to the improved functioning of the organization. This is not an easy task in that education can?not issue profit-loss statements as can industry nor can everything be related to specific, measurable changes in children. However, attention can be given to evaluating immediate learning and application of learning as a result of in-service.

The four methods of evaluating in-service presented in the next section are a beginning attempt in determining in-service effectiveness based on participant learning and application of learning. Prior to discussing the methods

## Pre-Post Test*

The use of a pre-post test to evaluate in-service effectiveness is an established technique. It can be used to measure increase of knowledge or skill that results from in-service by offering a comparison of knowledge/skill before and after the training. However, pitfalls that accompany test construction or test administration also apply to the use of the pre-post test.

There are some advantages of using a pre-post test form of evaluation. These are:

1. The learner is oriented to what is to occur during the session.
2. It is easy to administer.
3. It provides immediate feedback regarding successfulness of the training.
4. The results are reliable.
5. It is valuable in analyzing the training in regard to concepts understood and not understood.

There are also disadvantages that accompany the pre-post test. One is that pre-post tests are generally paper-pencil exercises, while job performance is not. Also, pre-post tests generally are factual in nature and do not emphasize generalization or application of concepts. It is necessary to mention that pre-post tests do not have to be limited in this regard. The pre-post test could be demonstration of an instructional technique, solving a classroom problem, or analysis of a child's learning problem. As pre-post tests emphasize application of knowledge or skill they become more valuable in determining in-service effectiveness. At the same time, administration and ease of scoring become more difficult.

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* Examples are shown on page 16.

# In-Meeting Objectives*

In-meeting objectives comprise the second method of evaluating in-service effectiveness. This method relies on the use of measurable objectives stated in terms of learner behavior that will or should occur during the in-service training session. Two examples of an in-meeting objective are below.

> "List four or more characteristics of a successful parent-teacher conference."
>
> "Shown a five minute video-tape, the teacher will pinpoint and list 10 or more specific behaviors as indicated by the instructor."

Measurable objectives stated in terms of participant behaviors, like those above, are the basis of this method and the following two methods: post-meeting objectives and behavioral contracts. The critical factor is that measurable objectives are statements of specific behavior that can be evaluated in terms of accomplishment. Objectives also tell the learner exactly what is expected to occur during the session.

There are different formats for writing measurable objectives and it is beyond the scope of this paper to discuss those methods. While terminology may differ in approach to writing objectives, expressed or implied in most formats are:

1. What is going to be done.
2. Who is going to do it.
3. When it is going to be done.
4. To whom it is going to be done.
5. Criteria that will indicate accomplishment.
6. Evaluation method used to determine if objective has been completed.

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* Examples are shown on page 17.

In-meeting objectives are provided to in-service training participants, who are asked to assume a shared responsibility in accomplishing them with the presenters. While not necessary, self-evaluation on the in-meeting objectives has been used rather than have participant performance evaluated by someone else. At the end of the meeting, an in-meeting objective form, listing the objectives and having columns labeled "Accomplished" and "Not Accomplished," is marked and submitted anonymously by participants. The reliability of results of this method appear to be high. However, participants may mark everything accomplished unless they are informed and properly oriented to the fact that it is important that accomplishment be determined exactly as objectives are stated. An attempt is being made to include control objectives that identify inaccurate responses. Experience in this attempt has shown that participants dislike having to mark an objective "not accomplished" even though no opportunity is provided for accomplishment. The use of control objectives should be studied further.

There are some significant advantages of conducting and evaluating in-service by use of in-meeting objectives. These are:

1. Objectives help to plan the in-service meeting.
2. In-meeting objectives orient participants to what they will do and accomplish during the meeting.
3. Objectives require providing opportunity for participant involvement.
4. Evaluation can be completed immediately following in-service.
5. Results are rather reliable.

To be effective, in-meeting objectives require:

1. That participants be oriented to what objectives are and how they are to be used.
2. That the presenter write participant objectives and provide opportunities for their accomplishment.

Also, someone other than participants usually determine in-meeting objectives. An obligation exists to have objectives reflect the interests, needs, and abilities of participants.

## Post-Meeting Objectives*

A third method of evaluating in-service effectiveness is the use of post-meeting objectives. Post-meeting objectives, like in-meeting objectives, are stated in terms of participant behavior. The difference is that the time frame for post-meeting objectives is after the meeting rather than during. This increases the amount of time required to conduct an evaluation, but also permits the evaluation to be related to application of learning instead of a measure of knowledge.

An example of a post-meeting objective used in conjunction with in-service training on the use of supplementary reading materials could be as follows:

> "By June 1, 1971, use four or more supplementary materials in your reading program. Information on materials used, number of children using the materials, source of materials and successfulness of the materials should be sent on the attached form. Information should be provided to the County Reading Consultant by June 7, 1971.

The emphasis on the above post-meeting objective is on application of information learned on the use of supplementary materials. This differs from the in-meeting objective previously cited which involves listing by the in-service participant.

Post-meeting objectives are presented to participants as a way of applying knowledge or skill provided during the in-service. While the participant is not asked to agree to accomplish the objective, the meeting is conducted in such a way that advantages of accomplishing the objective are seen. The post-meeting objective should be relevant and probability for successful accomplishment should be high. As a result, it is useful in answering a common participant question: "This is good information, but where do I start if I am to use it?" By providing a meaningful way to successfully apply the information, skills learned through in-service stand a better chance of being incorporated into classroom practice on an immediate and continued basis.

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* Examples are shown on page 18.

Post-meeting objectives are useful in that:

1. Post-meeting objectives orient the participant to situations in which the knowledge/skill can be applied.
2. Post-meeting objectives are easier to write because they are real world oriented, not paper-pencil oriented.
3. Evaluation is on application of knowledge/skill rather than whether or not it is possessed by participants.

Like in-meeting objectives, post-meeting objectives place demands on the presenter. Time is required to effectively use post-meeting objectives because:

1. Participants must be oriented to what they are and how they are used.
2. A procedure for reporting must be developed.
3. Follow-up may be required.

Also with post-meeting objectives:

1. Immediate in-service evaluation is not provided.
2. Objectives are speaker determined.
3. Reliability of self-reporting has not been determined.

It should be mentioned that post-meeting objectives can be used in situations in which skills cannot be applied. Teachers attending a meeting describing differentiated staffing or team teaching may not be in a situation to immediately apply the information. Post-meeting objectives, in such situations, could pertain to specific readings on the topic or visitations to programs using the approaches.

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# BEHAVIORAL CONTRACTS*

The use of behavioral contracts is the fourth method of evaluating inservice effectiveness. The design is like that of the post-meeting objective in that objectives or contract activities relate to post-meeting activities, are stated in measurable terms, and are intended to provide meaningful alternatives that can be successfully accomplished by participants. The difference is that the participant states whether or not he is going to complete an activity and when a choice is offered, which activities he is going to complete. The opportunity is always given the participant to indicate that he does not wish to contract.

In using the behavioral contract, it is signed by the participant and the presenter. Two copies are used, one going to the presenter, the other remaining with the participant. It has been found to be desirable to xerox a copy from the presenter's contract and mail or return it to the participant as soon as possible. This tends to reinforce the fact that the presenter is concerned about implementation of the content. Also, it is helpful to personalize the contract when sending it back by writing a short note on it. Individuals may complete the objective contracted for, but forget to submit the information. As a follow-up procedure, another xerox copy of the contract can be mailed to the participant if data has not been received by the due date. This method of follow-up has been accepted by participants.

A contract has seven basic components. These are:

1. name and address of participant
2. directions
3. contract alternatives or activities stated in measurable terms
4. date by which the contract information is to be submitted

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* Examples are shown on page 19.

5. name and address to whom the contract information is to be submitted

6. participant signature

7. presenter signature

While the above components should be expressed in a contract, organization of the components may vary.

The advantages of using behavioral contracts are:

1. Participants decide if they contract and may have performance options.

2. Contract objectives are easier to write in that they are oriented to the real world.

3. Evaluation of in-service effectiveness is related to performance rather than knowledge.

Demands on the presenter that accompany the behavioral contract are:

1. Participants must be oriented to the use of the contract.

2. Provision must be made for reporting of participant performance.

3. Follow-up may be needed.

4. In-service evaluation is not immediate.

The behavioral contract provides a method of involving in-service participants in the application or extension of the meeting content. It is effective in that participants are asked to reach a decision regarding what is to be done with knowledge or skills obtained in the meeting. Contracts as used by the author have been in situations where continued contact with in-service participants has not been possible. It may be at a local level that completion of a contract could be communicated by observation or materials literally handed to the presenter. This would reduce mechanical problems, although, it might be that a contract relationship between teachers-supervisors might not be desirable because of an existing administrative relationship. Whether or not this would pose a problem is unknown at this time.

# COMPUTING AND REPORTING IN-SERVICE EFFECTIVENESS

It is apparent that the process of evaluating in-service effectiveness is not complete until the data is compiled and reported. The four methods presented permit data to be viewed in terms of individual, sub-group or group performance on each item or on all items. There has not been enough experience with each method to determine pre-post test growth and per cent of accomplishment of in-meeting objectives, post-meeting objectives or contracts needed to indicate that an in-service meeting has been successful. Even though it is expected that performance ranges can be developed for each method, an element of subjectivity may exist or should exist. The in-service planners will always have to determine the minimum level of participant performance that can be accepted if the in-service training is to be successful.

The results of in-service evaluation can be used for a number of purposes. Obviously, results are crucial in analyzing strengths and weaknesses of the training program. Results have implications for planning future in-service on the same topic and also methodology used in in-service training on different topics. While feedback for redesigning in-service training is important, reporting to administrators is also a critical function of evaluation.

In-service results expressed in terms of participant performance are valuable in communicating to superiors. Data which indicates that change occurs as a result of in-service gains support for the allocation of time for in-service. In many areas, the in-service trainers and the in-service participants represent different agencies. Subsequently, permission must be obtained from administrators for released time. Permission is granted much more readily when planned participant outcomes and results can be provided to decision-makers. Even though previous in-service has been successful, unless results are communicated, the probability that administrative approval will be given for future in-service is not increased.

## CONDUCTING AND EVALUATING IN-SERVICE USING A BEHAVIORAL APPROACH

A behavioral approach to in-service training places certain demands on the in-service trainer that cannot be ignored. Because in-service is responsible for bringing about predetermined change, an outcome orientation needs to be created. The questions of "What are participants to do differently as a result of the in-service?" and "How is the program (classroom or administrative) to be different as a result of the in-service?" must be answered. Answers to these questions determine organization and methodology used in conducting the in-service.

With an outcome orientation to in-service, the issue of identification of needs arises. It becomes most obvious that content of in-service, if it is to produce an outcome, must relate to knowledge and skills that participants need if they are to perform effectively. Thus, a method of comparing present program and personnel performance against desired performance is needed to effectively determine in-service content and to establish priorities.

Ideally, in-service training meetings are part of a total in-service training plan which participants help to formulate. If this is not the case, the outcomes of the in-service meeting should be communicated to participants so they can elect to attend based not on presentation titles, but on the specific learnings that will be gained. Providing information which permits the participant to decide that he has the skills or that he isn't interested, aids in conducting effective in-service because those who participate come to learn. Such participants tend to be receptive to evaluation of in-service effectiveness based on participant learning.

Emphasis on predetermined outcomes and evaluation does not alter the nature of good in-service. The need for communication, rapport, participant comfort and other things are still of great importance. Because specified participant learning is desired, methodology is more like instructional practices found in elementary classrooms than the traditional lecture-listen approach which is often seen. Emphasis is on think-apply questions, participant involvement and participant response followed by feedback. Preparation time, including planning, room arranging, and design and preparation of materials, is increased but so is participant learning. Approaching in-service in such a manner also allows the in-service trainer to be a model for the classroom teacher with whom he is working.

Methods of evaluation should require minimum effort for maximum return. The four evaluation procedures discussed were those most applicable to trainers not having ongoing contact with participants. Where ongoing contact is possible, evaluation could be done on the basis of observations rather than reporting of teachers, e.g., tabulation of the number of teachers checking out supplementary reading materials from an IMC, following in-service on the use of supplementary reading materials. Pupil growth is the ultimate criterion of in-service effectiveness. It is possible to relate pupil change to in-service in some cases, but in many cases the nature of in-service content does not permit such a direct relationship. In the type of evaluation presented above it is also necessary to use measurable objectives. Without the objectives established before the in-service meeting, it is not possible to clearly identify the data to be collected.

There are advantages in combining methods of evaluating in-service effectiveness. This provides added evaluative information to use for analysis of effectiveness. Equally important, methods used to evaluate performance during the meeting orients and involves the participants; methods used to evaluate what is done after the meeting provide the participant with a place to begin in using the learning. Two methods combined can serve as reference points to the participant as he obtains and applies knowledge and skills.

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In-service training as continuing education to maximize services to children has not been viewed seriously in public education. In-service training has been treated as a series of isolated evants that have little bearing on performance of personnel and change needed in organizational functioning. While this has not been the intent, in most cases it has been the observed result. Responsibility rests on in-service trainers to alter this by emphasizing outcome from in-service and evaluating whether or not outcome occurs.

## Example Pre-Post Test*

1. What is the difference between hearing and listening?

2. What is an Audiogram?

3. With a hearing loss in the left ear only, where should a child be sitting in the classroom?

4. List three behavioral signs that would alert someone to a possible hearing loss.

5. Rank in order of importance to the child the four major areas of the language arts program.

   ------Listening ------ Speaking
   ------Writing ------Reading

6. Define a speech deviation or speech problem.

7. Name three types of articulation errors.

8. What should the classroom teacher do for a child who stutters?

9. Who has the responsibility for developing effective oral communication skills in children?

10. Name three specific pieces of instructional material that can be used to develop speech and language skills.

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* Dublinske, S. Audio-Recorded Pre-Post Test used at Drake University, April 8, 1970 with class on Exceptional Children.

## EXAMPLE IN-MEETING OBJECTIVES

_____(Title of Meeting/Presentation)_____

_____(Presenter)_____

_____(Date)_____

| In-Meeting Objectives | Accomplished | Not Accomplished |
|---|---|---|
| 1. I had the opportunity to select one or more post-meeting objectives that relate to serving handicapped children. | ____ | ____ |
| 2. I listed four or more resource persons that should be available to assist me in serving handicapped children in the regular classroom. | ____ | ____ |
| 3. I recorded three or more implications of the content of this presentation for me as a beginning teacher. | ____ | ____ |
| 4. Correctly discriminate six out of eight behaviors according to whether it is precisely pinpointed or behavior not pinpointed. | ____ | ____ |
| 5. Determine the preferred direction of change, accelerate or decelerate, for the examples given. Six out of eight correct. | ____ | ____ |
| 6. Calculate and graph two out of three behavior rates correctly. | ____ | ____ |
| 7. List at least three of the five methods used to identify needs of consumers. | ____ | ____ |
| 8. List five new direct services that could be offered by your center or unit. Check two of the five that you would like to implement. | ____ | ____ |
| 9. Write one performance objective using the listed criteria for the example indicated. | ____ | ____ |

Comments: (!!!???)

Objectives 1-3: Caster, J.A., "Serving Handicapped Learners in the Regular Classroom," Iowa State Education Association Convention: Student Section, February 5, 1971.

Objectives 4-6: Grimes, J.P., "Behavior Modification," Des Moines Guidance Workshop, June 22, 1970.

Objectives 7-9: Dublinske, S.E., "Direct and Indirect Service Strategies Based on Needs of Children and Teachers," Institute on Instructional Materials and Media Services for Handicapped Students, Des Moines, September 23, 1970.

## EXAMPLE POST-MEETING OBJECTIVES

Please read the following and check (✓) the appropriate blank according to whether the post-meeting objective was or was not accomplished. Return in the enclosed envelope no later than ________________.

| Post-Meeting Objectives | Accomplished | Not Accomplished |
|---|---|---|
| 1. I visited the Regional Education Media Center and used the Prescriptive Material Retrieval System to identify materials appropriate for one or more students I deal with. | ____ | ____ |
| 2. I tried, for 7 or more consecutive days, the method Mr. Grimes suggested at the meeting in Karen Acres, May 28, 1970. The method was to refrain from giving my child or children "the dickens" or correcting his action. Instead I wrote down the behavior that I wanted to have happen. When he behaved that way I was warm and approving. | ____ | ____ |
| 3. The consultant should introduce a selected piece of audio-visual equipment into the classroom of a selected teacher. The teacher should not have used the specific media this school year. After introducing the equipment into the classroom, the consultant should assist the teacher in effectively incorporating the equipment, as evaluated by the consultant, into the instructional program until it is used appropriately during four days out of a fifteen consecutive class day period. | ____ | ____ |
| 4. The consultant should visit the Regional Education Media Centers serving counties in which the consultant is employed and discuss area procedures for the use of the Prescriptive Materials Retrieval System, where it is located, and the procedures for using the system. | ____ | ____ |
| 5. The consultant should inform every teacher of the mentally retarded for whom he is responsible about the nature of the Prescriptive Materials Retrieval System, where it is located, and the procedures for using the System. | ____ | ____ |

Objective 1: Grimes, J.P., "Prescriptive Materials Retrieval System," In-Service for Local Educational Agency, 1970.

Objective 2: Grimes, J.P., "Behavior Modification for Parents," Urbandale School System, May 28, 1970.

Objectives 3-6: Caster, J.A., "Media in Special Education," State Meeting for Consultants in Mental Retardation, Cedar Rapids, December, 1969.

# BEHAVIORAL CONTRACT *

Name ______________________________________________

Address ____________________________________________

Please read and check (✓) one item and return this form to Stan Dublinske.

A. __________ I do not work with language problems.

B. __________ I do not believe I have the skills necessary to attempt a language remediation program.

C. __________ By ____________________ I will have utilized the Nortwestern Syntax Screening Test in addition to my present assessment tools for ten (10) of the articulation cases presently in my case load. (Assessment tool may be changed as Dr. Yoder suggests.) I will provide a written copy of the results of this project to Stan Dublinske within ten days after completion of the project.

D. __________ By ____________________ I will have evaluated five (5) articulation cases having the final "s" omission to determine if the problem is a true articulation error or a language problem in the area of pluralization or incorporating possessives. I will provide a written copy of the results of this project to Stan Dublinske within ten days after completion of the project.

If you check item "C" or "D" and would like any assistance in evaluating your results or would like additional information concerning the contract I will provide any consultation possible by phone or correspondence. I will respond to your communication within three (3) days.

Having completed the behavioral contract by the date indicated you will receive a copy of the booklet "Remedial Suggestion for Learning Disabilities as Diagnosed by the ITPA."

Stan Dublinske, Consultant
Clinical Speech Services
Department of Public Instruction
Division of Special Education
Grimes State Office Building
Des Moines, Iowa 50319

---

* Dublinske, S. Contract used in "Language Disorders: Diagnosis and Remediation," Storm Lake, Iowa, October 2, 3, 1970.

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## SELF-SELECTED POST-MEETING OBJECTIVES *

Directions: Review the objectives listed below. Select one or more of the objectives you intend to accomplish during the 1970-71 school year. Write in the date the objectives will be completed. You will be contacted during June 1971 inquiring whether the objectives were met.

1. By________________________contact key administrators working in the Regional Educational Media Center and/or Offices of Special Education and share five (5) or more ideas you feel would be valuable services for handicapped students in your area.

2. By________________________contact Mr. Larry Masat, Field Representative, (KU-SEIMC, Hodder Hall, 1115 Louisiana Street, Lawrence, Kansas 66044) and determine what services are available from which your organization might benefit.

3. By________________________, utilizing the information provided by Mr. King concerning sources of funds, contact one or more of the resource consultants or organizations and inquire into possible projects to serve handicapped students.

4. By________________________, Contact five (5) or more teachers and explore ideas relating to individualized instruction. Offer assistance if the teachers wish to individualize instruction.

5. By________________________, provide an in-service session for educators working with handicapped students, of which a tele-lecture is part of the program.

6. By________________________, contact Mr. Michael Robbins (Educational Resource Center, 114 Second Avenue, Coralville, Iowa 52240) and request additional information relating to Education Strategist.

7. By________________________, review and list the categories of instructional materials and media services available in the Media Center regarding what would be beneficial to special educators attempting to individualize instruction. Provide this list to interested teachers, consultants and administrators.

8. By________________________, establish a procedure new in your area for using teachers as a resource.

9. By________________________, implement one or more of the services you planned during this institute. Indicate what the service might entail:

Signature________________________

Date________________________

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* Grimes, J.P. Contract used in "Instructional Materials and Media Services for Handicapped Students," Des Moines, September 22-24, 1970.

## CONTRACT FOR POST MEETING OBJECTIVES *

Name ______________________________________________

Address ______________________________________________

______________________________ Zip Code ______________

Please complete one contract for yourself and one for me. I would like to have a contract from you regardless of whether or not you choose to participate.

Jerry Caster

Please check the appropriate items.

____ 1. I do not wish to contract for any post-meeting objectives.

____ 2. By March 1, write to Media Consultant, Division of Special Education, Iowa Department of Public Instruction, Grimes Building, Des Moines, Iowa 50319 and request a reprint of an article describing the Prescriptive Materials System.

____ 3. By March 1, visit the Regional Education Media Center nearest you and ask for a demonstration of the Prescriptive Materials Retrieval System.

____ 4. Between now and March 1, read Robert F. Mager's book, Preparing Instructional Objectives, Fearon Publishers, Palo Alto, California and complete the self-test (pages 54-60) with fewer than seven errors.

____ 5. By March 1, observe for two or more hours a class for handicapped children.

____ 6. By March 1, meet with one of the following professionals and ask him what services his discipline could provide to a handicapped child in your class or what assistance could be provided to you: nurse, speech clinician, psychologist, hearing clinician, special education consultant, or school social worker.

Send information regarding accomplishment of objectives by March 15th to:

Jerry A. Caster
Division of Special Education
Grimes State Office Building
Des Moines, Iowa 50319

______________________________
Signature of Individual Contracting

______________________________
Signature of Speaker

---

* Caster, J.A. Contract used in "Serving Handicapped Learners in the Regular Classroom," Iowa State Education Convention: Student Section, February 5, 1971.

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# EXAMPLE OF PLANNED OUTCOMES OF-IN SERVICE TRAINING

Objectives for Special Study Institute on

"EFFECTIVE CONSULTATION: A MEANS FOR EDUCATIONAL CHANGE"

Sponsored by
Division of Special Education
Iowa Department of Public Instruction
to be held
May 4, 5, 6, 1971
Carousel Inn, Iowa City

1. At the end of the three-day S.S.I. on May 6, 1971, each trainee shall have accomplished at least seventy-five percent of the in-meeting objectives established for institute participants.

2. By September 1, 1971, at least one set of training materials will be made available to each of the sixteen Regional Education Materials Centers.

3. By October 1, 1971, each trainee shall present one in-service session of at least thirty minutes that will be available to all of their staff and offered to special service personnel from adjacent counties not represented at the S.S.I. A report of this meeting will be submitted within twenty days of the in-service meeting. Trainees will predetermine criteria for in-service meeting success.

4. By November 1, 1971, each trainee shall submit a report of accomplishments of all self-selected post-meeting objectives. Each trainee shall select one or more post-meeting objectives.

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# DEVELOPMENT AND ANALYSIS OF CRITERION IN THE EVALUATION OF TEACHER PREPARATION AND CERTIFICATION: or,

## What should you do now that you can?

Richard Lim
University of Washington, Seattle

Jody has pointed out the many areas and levels of government in which we can become involved. Tim has provided an excellent model to initiate and implement change. But some of you may still wonder -- is student involvement possible? -- and is it feasible? As another example to show you that it is both possible and feasible -- and valid, I might add, I would like to tell you about our involvement at the University of Washington in one facet in the improvement of the education of exceptional children -- that of obtaining special certification for teachers of the mentally retarded.

When we began two years ago, the State of Washington was one of eighteen states which had absolutely no standards for teachers of the exceptional child. Any teacher with a regular teaching certificate could teach the blind, the deaf, the retarded, the gifted -- whatever. The situation was bad. But there was a ray of hope.

Just the year before, in April, 1968, there was a proposal known as the Fourth Draft. It was issued from the office of theState Superintendent of Public Instruction, and it called for the establishment of subcommittees to recommend new standards to upgrade the certification scheme for all school professional personel. These subcommittees would be composed of people from the professional organizations, public schools, colleges, and universities.

I doubt if we could have planned a better opportunity to begin the needed change in teacher certification of exceptional children.

Special education has been a dumping ground for poor teachers just too long. We cannot allow the incompetent teacher who cannot make it in a regular class with 25 children but who has tenure or a contract, to be placed in charge of a class with fewer children -- who are handicapped! As if this would solve his problem. The teachings of the exceptional child demand a superior and specially trained person.

Now, being directly involved with the training of teachers for the mentally retarded, we concentrated our efforts on certification for this group. We sought to establish the criteria by which we could safely predict that the teacher who meets these criteria will be an effective teacher of the mentally retarded.

After much ranting and raving from which no solutions developed, we did finally as Jody and Tim suggested. We made an exhaustive review. We studied the certification patterns in other states.

We found that most were based on meeting the legal requirements of taking prescribed courses in a teacher preparation institution. Most of these prescribed courses are didactic or lecture in nature. If there is a practicum, it is usually a very small part of the coursework. This required coursework pattern raises some serious questions:

Is the coursework relevant? And if it is, are there provisions for determining if a student can transfer this knowledge to a live and changing classroom?

Is not the last semester of a five-year program a little too late to find out that a person has no business in the classroom? It is a waste of resources for all involved -- the prospective teacher, the professors, and the students who will get this teacher if he does get into teaching.

Certification under this system of course completion is a constraining device. It keeps out of teaching all but those who can pass a prescribed sequence of courses.

Certification should not be this way. It should be a device which rewards those who are competent and additionally rewards those who seek continued professional growth. Certification should also be a device which seeks to include individuals who can help children learn. Certification should be a device that tells us something about the way the teacher performs in the classroom -- and it should make no difference where these competencies are gained.

Viewed in this light, we realized that the traditional course model was not our answer. We needed a new approach. Our answer came in the form of performance criteria, which is not in itself new. But its use as a basis for teacher certification is new. The State of Washington is, we believe, the first and only state working with this model.

In its simplest form, performance criteria specifies expected performance. But its simplicity in definition becomes deceptively complex in application -- especially when trying to apply it to teacher performance, for we must specify observable and measurable activities. Words we have been using to describe teacher behaviors -- such as "to know," "to understand," "to appreciate," etc. -- can no longer be used. Rather we must use terms such as "diagnose," "prescribe," "construct," and "develop" to describe desired teacher behaviors which are observable and can be measured.

Armed with this new concept, we proceeded to look at those activities which distinguished the performance of good teachers of the mentally retarded. We interacted with other educators, professional, and state personnel whom we had previously identified as the leaders in the formal and informal power structure.

In perhaps the most stimulating and revealing exchanges with these people, the enormity and complexity of the task of trying to specify performances was realized. It became apparent that just about everybody and his uncle had different conceptions of what performances were necessary for the list of performance criteria. We had fantastic hangups. Affective traits, personal and social characteristics, questionable "knowledges" having little to do with the actual teaching process were repeatedly demanded. We realized that these suggestions were well intended and meaningful to many people, but we also realized that specification to all these aspects would be far more harmful than helpful. We must certify teachers on criteria that are educationally relevant.

We also had to think in terms of the processes of teaching because specification of exact student learning - the product of education - requires a fixed curriculum which we did not believe should exist.

From all this a philosophy developed. We believed that every individual is unique and of value. He has the right to be helped to become himself.

In order to facilitate maximum development of the mentally retarded individual, his program must allow him to progress and develop at his own rate, consistent with his own personality and learning style. There are many ways to achieve any particular performance objective, and the performance objectives should be sequenced to lead the student toward the overall goals of the total program.

This is the model we developed which isolated the components of the teaching process into observable and measurable acts. Definitions and explanations of each term are in our booklet, but I do want to point out a few particulars.

Note that this model represents a coordinated program. The long-term objectives which are broken down into short-term objectives are directly related to the overall program goals.

Note also that this is simply a diagnostic-prescriptive-test model. After an initial diagnosis, materials and procedures are selected in light of the individual child's need., i.e. short-term objectives. Then an intervention is prescribed to meet the needs. As the child works with the prescribed intervention, the teacher continually assesses - tests - the effectiveness of his prescription. However, unlike most models, this system builds in an avenue for alternative interventions and/or sub-objectives. Also unlike most other models, this system provides an exit if or when all the long-term objectives are met.

Note, too, that this model allows the teacher to operate in an individual and creative manner but that the rights of the individual student are placed first by guaranteeing the student an individualized program.

In proposing this model it is assumed that the district is responsible for the district objectives and instructional sequences. The teacher is responsible for the implementation of these objectives.

Based on our model, we believe the following areas should be included in the evaluation of teachers for certification -- and I might add, teacher preparation.

1. The teacher must specify the long-term objectives for each individual consistent with the district objectives for the mentally retarded.

2. The teacher must show on request, current diagnostic records for each retarded individual in his classroom. These records must show the status of each retarded individual's academic, social, physical, and vocational development toward fulfillment of his individualized long-term objectives.

3. The teacher must show on request, written evidence of short-term objectives for instruction of the mentally retarded individuals in his classroom. These objectives must be based on and reflect the long-term objectives for the individual diagnoses made.

4. The teacher must show written evidence of continuous assessment of each mentally retarded individual's academic, social, physical, and vocational performance. These assessments must show that alternate procedures and/or materials or sub-objectives are provided for the child if he falters in his progress toward the achievement of the short-term objectives.

5. In an actual teaching situation, the teacher must demonstrate application of the selected intervention.

We drafted a tentative listing of those things on which we would like to evaluate teachers. It follows our model in that it calls for a coordinated program for the individual with sequences of long-term and short-term objectives and that it includes education of the whole child -- the social, physical, academic, and vocational aspects. Both the model and this listing are included in our booklet.

Although we have not yet attained the desired special certification for teachers of the mentally retarded, it is satisfying to know that our involvement has definitely shaped the drafting of the certification standards. Our proposals have formed the basis for discussion at many levels - the state department of special education, colleges, and universities, professional organizations, school districts. All have taken copies of our drafts as developed toward this concept. It also helped us restructure our thinking at the University of Washington as to improvement of our teacher training program.

This experience has been highly stimulating and highly rewarding. But student involvement does take a heavy toll in time and energy. But since special education is where you have chosen to expend your time and energy, make the most of it. Through our examples you can see that student involvement in special legislation is possible, is feasible, and it is valid. And it doesn't have to be subversive.

# TEACHER CERTIFICATION AND PREPARATION--A MODEL

## 1. Rationale

A. The Mental Retardation Subcommittee for Special Education Certification under the Fourth Draft proposes criteria in addition to those required for standard certification of elementary and secondary school teachers as a basis for the creation of a continuing certification for master teachers of the mentally retarded.

B. In developing these criteria, it is necessary to determine what the effective teacher of the mentally retarded does that is different from or in addition to what is done by teachers in regular education. Through examination and measurement of these observable and measurable acts, minimum performance criteria can be established on which to base certification standards.

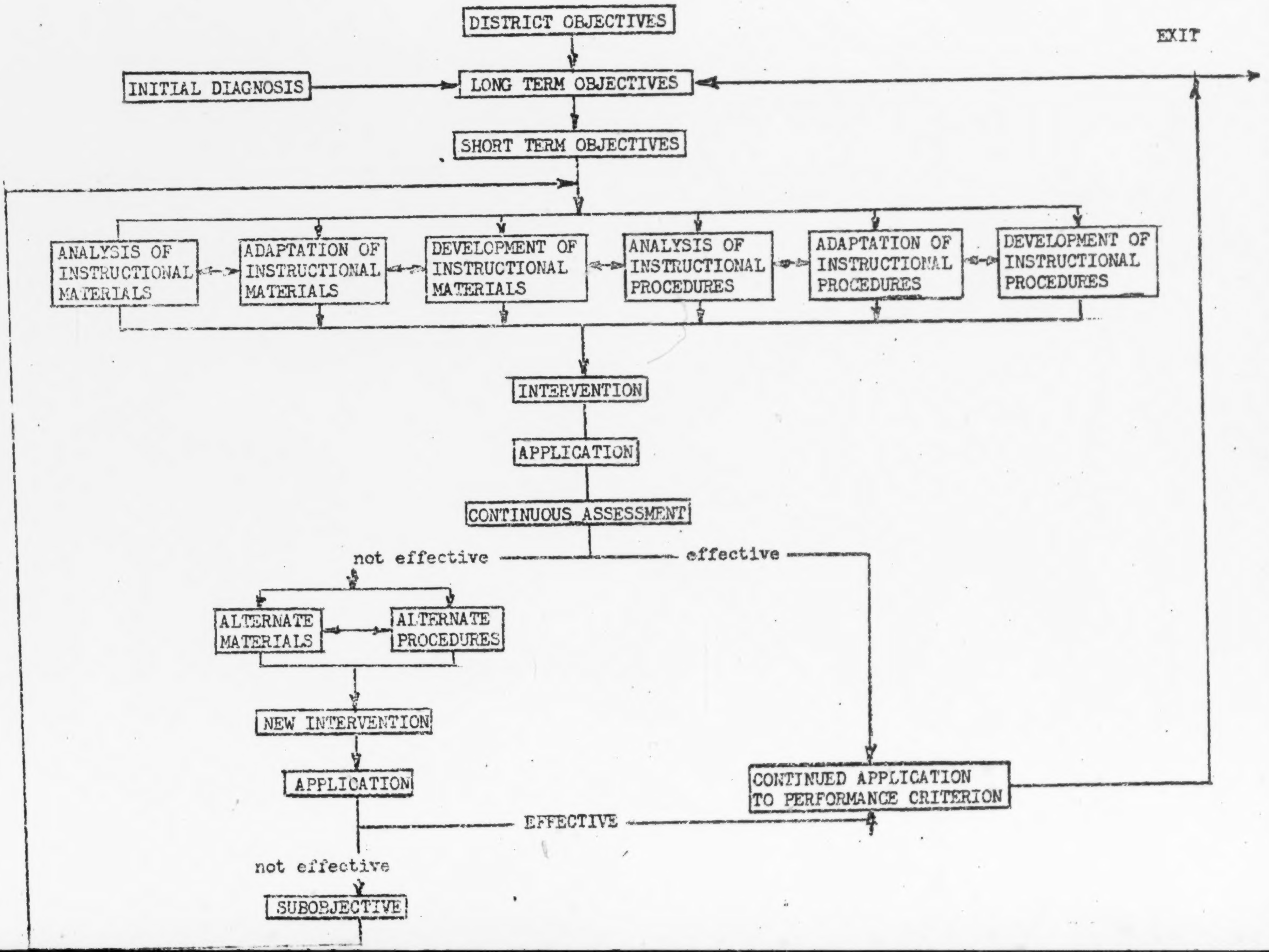
## II. UNDERLYING ASSUMPTIONS

A. Because of the inadequacies of normative data as a basis for the education of mentally retarded children, individualized instruction is a fundamental element of special education. Individualized instruction for the mentally retarded should be based on instructional sequences in the areas of academic, social, physical, and vocational education.

B. Teaching presupposes immediate short-term objectives as part of general long-term objectives. Effectiveness of teacher behavior therefore necessitates determination by the school district of the scope and direction of the total program for the mentally retarded children and the utilization by the teacher of these district objectives in developing long- and short-term objectives for each student.

C. The school district is responsible for district objectives and instructional sequences in the areas of academic, social, physical, and vocational education. The teacher is responsible for program determination for each individual in those areas in which he instructs. This program must include onlg- and short-term objectives based on the district objectives, intervention through appropriate instructional materials and procedures, and continuous assessment of the effectiveness of the intervention in the accomplishment of the objectives with instructional modifications as indicated.

D. School districts must have developed district objectives and instructional sequences for the mentally retarded individual. These objectives and sequences should be a requirement for special education program approval by the office of the Superintendent of Public Instruction.


DISTRICT OBJECTIVES
INITIAL DIAGNOSIS
LONG TERM OBJECTIVES
EXIT
SHORT TERM OBJECTIVES
ANALYSIS OF INSTRUCTIONAL MATERIALS
ADAPTATION OF INSTRUCTIONAL MATERIALS
DEVELOPMENT OF INSTRUCTIONAL MATERIALS
ANALYSIS OF INSTRUCTIONAL PROCEDURES
ADAPTATION OF INSTRUCTIONAL PROCEDURES
DEVELOPMENT OF INSTRUCTIONAL PROCEDURES
INTERVENTION
APPLICATION
CONTINUOUS ASSESSMENT
not effective
effective
ALTERNATE MATERIALS
ALTERNATE PROCEDURES
NEW INTERVENTION
APPLICATION
EFFECTIVE
CONTINUED APPLICATION TO PERFORMANCE CRITERION
not effective
SUBOBJECTIVE

## IV. DEFINITION OF TERMS

A. DISTRICT OBJECTIVES refers to the academic, social, physical, and vocational competencies expected of the mentally retarded student as an adult.

B. LONG-TERM OBJECTIVES refers to the delineation of district objectives appropriate to the student's level of functioning.

C. INITIAL DIAGNOSIS refers to the determination of the performance level of the individual student relative to district objectives at a given point in his educational program.

D. SHORT-TERM OBJECTIVES refers to the delineation of the long-term objectives appropriate to the student's level of functioning at a given point in his educational program.

E. ANALYSIS OF INSTRUCTIONAL MATERIALS refers to the review of available materials appropriate to the diagnosis and short-term objectives established for the student.

F. ADAPTATION OF INSTRUCTIONAL MATERIALS refers to the rearrangement of available materials appropriate to the diagnosis and short-term objectives established for the student.

G. DEVELOPMENT OF INSTRUCTIONAL MATERIALS refers to the creation of materials which are appropriate to the diagnosis and short-term objectives established for the student.

H. ANALYSIS OF INSTRUCTIONAL PROCEDURES refers to the review of available strategies appropriate to the diagnosis and short-term objectives established for the student.

I. ADAPTATION OF INSTRUCTIONAL PROCEDURES refers to the rearrangement of available strategies appropriate to the diagnosis and short-term objectives established for the student.

J. DEVELOPMENT OF INSTRUCTIONAL PROCEDURES refers to the creation of strategies which are appropriate to the diagnosis and short-term objectives established for the student.

K. INTERVENTION refers to the prescription of materials and procedures appropriate to the diagnosis and short-term objectives established for the student.

L. APPLICATION refers to the presentation of the prescribed intervention to the student.

M. CONTINUOUS ASSESSMENT refers to the ongoing evaluation of the student's performance with the prescribed intervention with feedback leading to the continued application and/or alternate materials and/or alternate procedures.

N. ALTERNATE PROCEDURES refers to different strategies appropriate to the diagnosis and short-term objective initially established for the student.

O. ALTERNATE MATERIALS refers to different materials appropriate to the diagnosis and short-term objective initially established for the student.

P. NEW INTERVENTION refers to the different prescription of materials and/or procedures appropriate to the diagnosis and short-term objective initially established for the student.

Q. SUB-OBJECTIVE refers to the finer delineation of the short-term objective through smaller steps.

R. CONTINUED APPLICATION TO PERFORMANCE CRITERION refers to the ongoing use of the effective intervention until the student masters the short-term objective.

V. AREAS FOR EVALUATION

A. The teacher must specify the long-term objectives for each individual consistent with the district objectives for the mentally retarded child.

B. The teacher must show on request, current diagnostic records for each retarded individual in his classroom. These records must show the status of each retarded individual's academic, social, physical, and vocational development toward fulfillment of his individualized long-term objectives.

C. The teacher must show on request, written evidence of short-term objectives for his instruction of the mentally retarded individuals in his classroom. These objectives must be based on and reflect the long-term objectives for the individual diagnoses made.

D. The teacher must show written evidence of continuous assessment of each mentally retarded individual's academic, social, physical, and vocational performance. These assessments must show that alternate procedures and/or materials or sub-objectives are provided for the child if he falters in his progress toward the achievement of the short-term objectives.

E. In an actual teaching situation, the teacher must demonstrate application of the selected intervention.

## VI. PERFORMANCE CRITERIA

A. The evaluation team is to be presented with:

1. A list of district objectives.
2. A list of the long term objectives for each child in the teacher's class.

Are the two consistent? _____

B. Current diagnostic records for each retarded individual in the class must be presented for each of the following areas:

1. Academic
2. Social
3. Physical
4. Vocational

Is there evidence of information directly relevant to the fulfillment of the long term objectives? _____

C. A list of short term objectives for each of the long term objectives specified for the individual child must be produced. _____

D. The teacher must show written evidence of continuous assessment in the following areas:

1. Academic
    a. Alternate procedures
    b. Alternate materials
    c. Criterion measures
    d. Sub-objectives

2. Social
   - a. Alternate procedures
   - b. Alternate materials
   - c. Criterion measures
   - d. Sub-objectives

3. Physical
   - a. Alternate procedures
   - b. Alternate materials
   - c. Criterion measures
   - d. Sub-objectives

4. Vocational
   - a. Alternate procedures
   - b. Alternate materials
   - c. Criterion measures
   - d. Sub-objectives

E. While the teacher's class is in session, the evaluation team will videotape the activities and interventions of the child who was chosen in criterion D above. This video-recording will have a duration of 30 minutes at any time which the team determines. Evaluation will be made on the basis of:

1. The specification of the intervention which is to take place as determined by the team from the specification of interventions in criterion D above.

2. Consistency of specified intervention and observed intervention.

Evaluation will be based on the video tape recording of the teacher's performance after steps A, B, C, D have been fulfilled.

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# GROUP PROCESSES SUPPORTING HUMANISTIC EDUCATION

Joyce Sonntag
San Fernando Valley State College, Northridge, California

I would like to share with you some activities from the human potential movement, from communications laboratories, from meditative disciplines; which seem to have had powerful effects on the groups of people who do them together: students in teacher-education classes have achieved important insights into themselves, and have related to one another in mutually supportive ways. Teachers and children have communicated across the fears and distances that separate them, and diminished the fears and the distances. Classes have become networks of "helping" relationships, where students facilitate one another's growth in individually satisfying directions.

If I describe what we do, perhaps I can convey something of the experience. If I invite a few volunteers to join me and help me demonstrate what I'm talking about, I think you might understand more of what is involved. Or, we could do these things together, and you could consult your own experience in them in deciding about their usefullness. It seems to me that if the third way is available the first two are a waste of time.

Before we do anything else, I would like to ask you to notice how it feels to be in this room...close your eyes and be aware of your level of comfort or discomfort... how do you feel about what you've been hearing?...notice how you feel towards me... and whether you could imagine us having a conversation...what would you have to say to me...notice how you feel about the people on each side of you...close? distant?... interested?..bored?...you don't have to tell anyone -- just notice how you're feeling...

and open your eyes.

Now please use the next three minutes to have a conversation with someone you don't already know. Please do three things -- try to get to know your partner... try to make yourself known to your partner...and notice how it feels to be doing that. We are really short on time, so you will have to find a partner quickly, and make every minute count.

Take a minute to think about your way of doing what we just did...for example, what did you find out about your partner? ...and are those the things you really want to know?...What does your partner know about you?...and does this include anything very interesting about you?...How about the balance between talking and listening?... Does anyone feel that they talked too much?...How does that feel?...Would anyone like to put a word on the feeling?...Maybe you barely spoke at all...How does that feel?... Is it ok, or do you miss the feeling of being known to someone else?...Was your way of doing this unusual -- or pretty much your accustomed style?...If you think that your balance is usually on the side of talking...or usually on the side of listening...you might want to explore the other side of the balance, just to see how that feels...

If you aren't satisfied with the way you just had a conversation, think about how you might have a better one...and choose another stranger for a partner. This time we have a rule: don't ask any questions. Mutual inquisition is not necessarily the most effective way of getting to know another person...so talk to your new partner for three minutes and don't ask any questions... stop.

Compare the two conversations you have just had. Was the second better?... or worse?...or about the same as the first?...How was it not to ask questions?...did you learn different things, or was it about the same?...Did you say different things about yourself when you weren't questioned?...or was that about the same?...Notice your feeling about your partner...How does it feel to be in this room?...Has that changed any, or is it about the same?

Please find another person that you would like to get to know...and for two minutes...without talking at all... just look at your partner...it's ok to be a little embarrassed, but don't talk...and see what you can learn about your partner from just looking...If you find you are avoiding each others eyes, consider not avoiding them...just to find out what it is that is kind of scary about looking at eyes.

Turn your back to your partner. Now, without turning around...talk things over for three minutes...stop.

How was that?...Which was better -- looking or not looking?...What was bad about looking?...about not looking?...How was being looked at?

Notice how it feels to be in this room. Has anything changed from the way you felt twenty minutes ago? What's different?...You have spent some time getting in touch with the other people here...let's take a little time for getting in touch with yourself.

Close your eyes...and notice the way the air of the room feels to your skin...is it warmer or cooler than you are?...Notice your breathing...without trying to change it, notice whether it is fast or slow...deep or shallow...This is one way that you interact with the universe...taking it in...changing it...and sendin it out. Each time you do this, you change, and the universe changes...and neither of you will ever be quite as you were. This interaction with the universe has a rhythm to it...Be aware of the rhythm of your breathing.

There is another rhythm in the way you are alive right now...your pulse...Be aware of your heart and the rhythm of its beat...notice the pulse in your fingertips...

in the tip of your nose. (This one takes longer.)... Move your attention down the back of your neck, and across your shoulders... Notice any discomfort that you've been ignoring... where are your clothes pushing at your body, and constricting it?... where are you pushing at your clothes and shaping them?...

How is it in the center of you?... What kinds of feelings are stirring there?... remember that there are other people in the room?... how do you feel towards them?... Do you feel like being closer to the people here?... or do you feel like staying separate, inside of yourself?... Are you allowing yourself to feel whichever way it is, or do you think it is better to feel one of those ways, and are you trying to push yourself toward feeling that way?... if so, try letting yourself be.

Very slowly, come back out of yourself, and into the community here. When you are ready, open your eyes, look around... and without talking, find yourself another partner.

Close your eyes and take your partner's hands. Can you tell anything about how your partner is feeling from his hands?... Can you let your partner know how you are feeling with just your hands?... Without opening your eyes, move your hands to your partners face... Can you tell anything about how he is feeling from touching his face?... from the temperature, or the tension... what are you learning about your partner?

When you are ready, open your eyes, with your partner, join two other couples, and talk over what you have been doing here, and how you feel about it. In a few minutes we will reassemble as a group.

To become a teacher is to enter into a special relationship with students, will colleagues, with the community. Therefore, teacher education should provide opportunities to examine ones' characteristic ways of relating. If these relationships are to be authentic and growth promoting, teachers must have a high level of self-awareness. Therefore, teachers need experiences that heighten self-awareness.

Beyond the potential value of this kind of group experience in promoting individual awareness and the ability to establish relationships, is the value in creating a climate of trust in which members can safely disclose unfamiliar parts of themselves. It is important that this be a part of the future teacher's own learning experience, and that she know how to provide it for students. A group in which psychological survival is not threatened can develop a sense of community which gives each member the feeling of belonging. Where mutual respect satisfies basic needs for esteem, members are released from the pressures of deficiency needs -- released to grow towards self-actualization.

Meaningful personal goals may be accomplished in relationship with ideas and materials, but they are set and clarified -- and eventually acted upon -- in relationships with persons. It is in personal encounter that the individual's own objectives become clear to him -- social and political acceptance determine whether his new ideas are acted upon.

Access to persons must be given the highest priority in humanistic education, because it opens access to self. This is particulary evident in the development of gifted children -- since one of their differentiating characteristics is a history of close interaction with adults. It is important that their education include both the kind of learning uniquely available from their peers, and the process of achieving and maintaining mutually rewarding peer relationships.

Attention to the development of the group is important in any efforts at humanistic education, and seems essential to the education of teachers. Teachers must be able to enter into authentic relationships, and to help their students to achieve them -- because the crucial need in human education is the need people have for one another.

# In-Service Training: Implications

Sue. C. Tenorio
George Washington University, Washington, D C

Long after the excited screaming and shouting that accompanies the introduction of any new product has ended, the most important activity continues to take place ..... maintenance of the product. For quite obviously, if the product doesn't work, it won't sell. It is to this point that this paper is geared although the educational jargon for maintenance or anything that benefits maintenance, is called "In-Service Training."

Over the course of the Northern Virginia Title III (ESEA) Diagnostic and Resource Teacher Program, there were a number of in-service activities which took place that may have implications for the introduction and/or maintenance of innovative teaching models into a regular school program. One of the most significant implications is that, by far, the most critical maintenance or in-service activity takes place outside the program being introduced. The focus of this paper, consequently, will be upon In-Service Activities within and outside the program, respectively.

## Within the Program

As with any large group of teachers and/or specialists, there were varying backgrounds of teaching and training experiences among the Diagnostic-Prescriptive and Crisis-Resource Teachers in the Title III Program -- ranging from first year teachers to individuals with twelve years teaching experience. There were teachers who had undergone full university training as Diagnostic-Prescriptive and Crisis-Resource Teachers to those who, although acquainted with the Program concepts, had had no formal coursework. Needless to say, with such a myriad of needs, skills and abilities, much of the "in-house" in-service training had to be individually tailored.

At the beginning of the school year, a week long Orientation-Training Program was held for Program Teachers. Although a few of the presentations involved outside consultants, the major portion of presentations were made by individuals -- teachers and administrative staff -- within the Program itself. Not only did such an approach allow the fledgling teachers to discuss the situation directly and openly with those who "had been there and back," but it also served to strengthen communication and interstaff relationships.

Two Program activities were required attendance for all Program Teachers -- bi-weekly meetings and monthly workshops. Bi-weekly meetings were held after school with Diagnostic-Prescriptive and Crisis-Resource Teachers individually, primarily to disseminate information and discuss programs. Invariably, however, these meetings took on the format of problem-solving.

At these meetings it was not unusual for a teacher to initiate discussion by saying, "This happened to me in my school .... does anyone have any suggestions about what I can or should do?" A pooling of experiences, both negative and positive, as well as suggestions re: materials and approaches often resulted. It is significant to note that mid-year these meetings took place only once a month as the flourishing of individual teacher's programs seemed to decrease the need for such group meetings.

Through the cooperation of principals of schools in the Program, monthly workshops for all Program Teachers as well as any interested principals, supervisors, and directors, were held the last Friday morning of each month. In addition to providing the Program Teachers with the opportunity to meet en masse to share ideas, the workshops also were intended to stimulate and generate professional interests via a variety of presentations.

Among the workshop presentations were those by a Supervisor of Crisis-Resource Teachers in a neighboring community and another by a Director of a private School utilizing behavior modification exclusively. One workshop afforded Program Teachers the opportunity to attend the State CEC Federation Meeting. The final workshop of the year involved discussion and planning of the Program for the following year based upon mail-out evaluation forms to the Program Teachers.

Supplemental to the total group in-service activities were individual in-service activities. These included demonstration teaching and team teaching by supervisory staff as well as participation in school conferences and meetings with the Diagnostic-Prescriptive and Crisis-Resource Teachers. The authority and prestige of the Program Administration often served to reiterate and support recommendations made by the Program Teachers.

The need for such reinforcement of the role and function of program teachers cannot be overemphasized. As school-based educational specialists, the Crisis-Resource and Diagnostic-Prescriptive Teachers, by design, must maintain strong, positive intrastaff relationships. By virtue of that factor alone, Program Teachers do not have the usual freedom to criticize or complain about another staff member's shortcomings. Opportunities need to be provided in which Program Teachers can "let it all hang out", i.e. to discuss freely issues and concerns with an objective party or parties without fear of reprisal.

Once a month, principals of Program Schools met with the Program Administrative Staff to discuss the progress of the Program. Since the Title III Program involved three separate communities in Northern Virginia -- Alexandria, Arlington, and Falls Church -- these meetings not only served to foster inter-community relationships, but also provided an accessible line of communication between the schools' administration and the Program Administration.

The support of school administration should not be underestimated for without it, many a Crisis-Resource or Diagnostic-Prescriptive Teacher would have been stymied. Very oftentimes the difference between a good Program Teacher and an excellent Program Teacher is a highly supportive administrator.

In the first year to reinforce the goals and philosophy of the Title III Program, tuition-free university courses on Diagnostic-Prescriptive and Crisis-Resource Teaching, were offered to Program Teachers and Principals, sponsored by the Program in conjunction with The George Washington University. The second year, courses on the same basis were again offered but to regular classroom teachers within the Program Schools. Although funding in the third year did not permit, plans were to sponsor the same courses for classroom teachers and principals in non-program schools to extend the ideals of the Program and hopefully encourage a proliferation of the two teaching models within the three communities.

## Outside the Program

As was alluded to earlier, the most critical in-service activity occurred outside the Program. Largely due to its newness, any innovative teaching model, method, or material is invariably viewed, at least initially, with much apprehension and sometimes, great mistrust. The tenuous lifehood of such a product becomes readily apparent and the most effective means of overcoming this "handicap" is to demonstrate the strengths and/or benefits of the product, i.e. "that it does, indeed, "work". This point becomes especially critical when the product in question is funded in part by federal or state funds which eventually must be matched or taken over by local communities.

Keeping all this in mind the code phrases for the Program Administration became, "Be accessible -- get information out and get people in to see." The process of maintenance, or in-service, outside the Program entailed a dissemination of information first followed by opportunities to question and discuss. This was accomplished by three means of communication -- written, oral, and visual.

Written communication included a Newsletter and position papers describing the Program which were sent out to local, state, and national sources, including professional organizations and university programs. A Methods and Materials Manual based primarily on suggestions and ideas from the Program Staff was put together and distributed. This same manual was eventually printed by the State Department of Education of Virginia and is available upon request.

Oral communication included presenting speeches -- anywhere and everywhere, in-state and out-state -- to parent groups, professional and para-professional organizations. Not to be over looked were student groups from high school to college-level. Particularly at the graduate level some of the university students showed potential of becoming Diagnostic-Prescriptive and Crisis-Resource Teachers and/or introducing the concepts into their immediate work situations with assistance.

It is one thing to read or hear about an innovative concept but another thing to actually see it in action.

To this end, visual communication included a continuous flow of visitors, professionals at local, state, and national levels, to the Program Schools to observe and talk with principals, classroom teachers, and Program Teachers. Additionally, series of demonstration teaching sessions were held, at request, in schools where administration and faculty were interested in learning how they could begin to initiate the Title III Program concepts.

As the Title III (ESEA) Diagnostic-Prescriptive and Crisis-Resource Teacher Program ends its third and final year, the time and effort put into the maintenance and service of those within but particularly to those outside the Program, appears to have been well-invested --- once upon a concept, now upon us a reality.

# An Introduction to Behavior Modification for Teachers

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The purpose of this presentation is to introduce you to some of the more important basic principles of behavior modification and to stimulate you to want to learn more about these principles. We are assuming that these materials do in fact constitute an introduction for most of our audience today.

It is not possible to deal exhaustively in this relatively short time we have today with all of the principles of behavior modification. We will instead focus here on three principles which are basic to the understanding and successful use of the larger set of principles, namely, the counting, pinpointing, and charting of behaviors.

In the video tapes you will see during this presentation three different teaching situations were filmed as they actually occurred. The situations depicted in each tape segment cover a wide range of behaviors, from a child with a severe problem of disruptive and self abusive behavior to a classroom filled to the"nervous breakdown"with emotionally disturbed children. We have selected this variety of behaviors in order to demonstrate to you that each could be dealt with successfully by the same basic application of behavior modification principles.

In the first video-tape you will see a young boy whose behavior was characterized by an extremely high level of hyperactivity. His parents described him as extremely destructive, commenting that he "got into everything" and that they had to keep all the cupboards in the house locked. He was reported to sleep very little and his parents had to get up several times during the night in order to put him back in bed. His doctor described his behavior similarly stating that he was "extremely hyperactive in the true sense, all over the room, very distractable, etc."

You will be shown two brief segments of a teaching situation with this child.

In both segments he is being rewarded for correctly naming the color of a card when presented to him. Please note the child's level of attention to the task throughout both segments.

The second video-tape illustrates the use of a powerful behaviorial procedure with a young boy who has a history of self-abusive, tantrum and destructive behaviors. Since the child that you will see does not speak, the teacher is attempting to increase the frequency of his imitation of sounds which is the first step in the speech development program. The task confronting the teacher is to eliminate the disruptive behaviors in order that the teaching process can begin.

During both of these video-tapes you will be asked to count and graph specified behaviors engaged in by these children. Pre-labeled graphs are included in this manual for that purpose. Additional information regarding these childrens' diagnoses and the outcome obtained by the application of these techniques is also included in your manual.

The third tape illustrates the application of a token system with a class of emotionally disturbed children. This tape is presented in four segments. The first segment shows the classroom prior to the application of the token system; the second and third illustrate the steps used in applying the token system while the fourth shows the classroom approximately 6 weeks after the token system was begun. A detailed discussion of the application of the token system and related reading materials are included in your manual.

Throughout this presentation you will notice that appropriate behaviors are rewarded with extrinsic rewards, including candy and tokens. Extensive research indicates that this is one of the most efficient ways to develop and maintain desired behaviors. You will also notice that each time the extrinsic reward is offered to the child, praise from the teacher is also given. The purpose in doing this is to facilitate bringing the child's behavior under the control of the praise alone so that the extrinsic rewards will no longer be required.

Let us begin now to consider the first two of the three principles that we will explore today, counting and pinpointing behaviors.

## COUNTING AND PINPOINTING BEHAVIOR

The first step in implementing and applying the techniques of behavior management is to establish a "target behavior". In this phase you need to determine just what behavior you are going to attempt to alter. When you begin, it may seem that there are a number of potential behaviors: "He's hyperactive", "He's all over the room", "He bothers other kids", "He doesn't do his work", "How does he bother other kids? ", "Does he bother all of them? ", "How often? ". The best technique is to arrange these in a priority ranking. This will indicate a starting place and also serve as a resource list for further projects.

Once you have decided on a "target behavior", it will be necessary to pinpoint the specific act. This specificity is necessary for consistency in measurement. The key question in pinpointing is, "Is it observable and measurable? ". The best way to determine this is to be sure you have scientifically defined the behavior observed and the procedure used to record the behavior. Your recording should be subjected to a reliability check that is reported in terms of the process and degree of agreement obtained. It must be stressed that a precise definition of the behavior and observation techniques are essential. It is not sufficient to say, "He is having problems in arithmetic". But rather, "He cannot add two column numbers".

This represents a type of behavior referred to as operant or voluntary. It means that the behavior is emitted and followed by a consequence. The other type of behavior, respondent or reflex, occurs as a result of some stimulus. In behavior modification we are primarily concerned with the operant behaviors and thus you may hear the label "operant conditioning" applied to the process.

Following the pinpointing of a specific behavior one must determine how often, when, or how many times is the behavior occurring. There are different methods of measuring and recording.

The three main types of recording are automatic recording, direct measurement of permanent products and observational recording. Each of these methods has certain advantages and disadvantages associated with it, but each also serves to give the best indication of specific types of information.

Automatic Recording utilizes a mechanical process which is activated by the individual and the machine, in turn, records the response. Electrical counters on turn stiles are an everyday example of this. This is a good technique, if you have the equipment, for counting every time a response is made.

Direct Measurement of a Permanent Product is a title applied to tangible things produced by the individual. This is particularly applicable to academic tasks such as written spelling words, answers to social studies questions, or ball kicking trials.

Observational Recording is the third type and consists of several types of recordings:

> Continuous recording is simply a method where the observer records everything as it happens. In such cases it is like an anecdotal record of all events.
>
> A more manageable educational technique is event recording where the observer selects specific behaviors and records the frequency of their occurrence. Often this is referred to as tally recording because the observer simply makes a lumberman's mark or tally each time the event occurs. This is appropriate to behavior where merely knowing the number of times the event occurred is important. The number of times the child initiated conversation or number of times he spoke out without permission could be recorded in this manner.

> In some cases it is important to know how long the activity was in progress. It may be important to know how long it took the child to complete ten problems or how long it took him to get his materials ready before he began the assignment. This is called duration recording.
>
> Two types of sampling recording are interval recording and time sampling. During interval recording the observation session is divided into equal time segments. The observer simply records whether the behavior did or did not occur during that time period, giving both frequency and duration. In time sampling method, the observation session is divided into intervals but the occurrence or non-occurrence of the behavior is only observed at the end of each interval.

Percent and rate are frequently calculated on academic behaviors. Most commonly this is percent correct and rate correct. To figure percent correct you count the number correct and divide it by the total number of items. To establish rate correct, divide the number correct by the number of seconds required to complete the task and multiply by 60 for rate correct per minute.

Once the counting procedure has been determined, the baseline or record of the operant level of the behavior can be determined. This is necessary if you are to decide what modification you want to make on the behavior.

- I. Establishing a target
  - A. Number of potential will appear
  - B. List in priority rank
- II. Pinpoint behavior (target)
  - A. Identify specifically for consistency in measurement
  - B. Observable and measurable
    - 1. Scientific definition
      - a. behavior observed
        procedure used to record behavior
    - 2. Description of reliability
      - a. how obtained
      - b. degree of agreement
  - C. Types of Behavior
    - 1. Respondent
      - a. reflex
      - b. stimulus-response
    - 2. Operant
      - a. voluntary
      - b. behavior-consequence
- III. Counting Behavior
  - A. Determine what records to keep
    - 1. Counting every occurrence (tally)
      To affect number of times done
    - 2. Rate
      - a. if interested in time as relates to number
      - b. rate correct
    - 3. Percent
      - a. number of total
      - b. number correct
    - 4. Duration
      time for whole task
  - B. Baseline
    - 1. need record of operant level
    - 2. need to determine what to do
      - a. accelerate
      - b. decelerate

# "Charting of Behaviors"

## Individualization through Measurement and Standardization

Imagine a world without measurement or any form of standardization! How delightful you say -- we could really do our own thing and be an individual. But stop and think . . . . . . . a world without standardization? Could we survive, much less function adequately? Yes, I suppose that we could survive, but at a rather low level, and what progress we have made over the centuries would be nearly negated in a short time. We would have no way to communicate about time, or distance, or size. We would be in quite a quandary if we legislated out standardization and quite possibly an underground movement would begin to bring it back in as soon as possible!

Measurement and standardization are here to stay and as educators we will do well to look around and determine how this phenomenon effects, or should effect, what goes on in the classroom. We can point to numerous examples of progress because of our ability to apply the principles of standardization and measurement to the sciences and to direct application in industry. And if we really observe the learning process in a classroom it doesn't take long to see the need for the application of measurement to what we do with kids. One author has stated it rather succinctly when he said "Measurement is the only means whereby the teacher can objectively know what is happening in the classroom."[1] And until we know what is happening in the classroom we are not in a position to individualize instruction. Measurement need not lead to an assembly line method of providing learning experiences for children, but just the opposite; measurement provides us with an essential tool necessary for helping each child to learn in his own way at his own rate. The standardization we are talking about is not a standard teaching method but rather a standard for measuring and portraying where a child is, where he has been, and where he is going.

---

[1] Harold Kunzelmann (Ed.) Precision Teaching: An Initial Training Sequence. Seattle: Special Child Publications, 1970.

## Measurement in the Classroom

Perhaps the overriding question we often ask (or need to ask) as teachers is this: "How do I know when I've done the job?" Are my pupils really improving? If so, how rapidly? Are they learning as rapidly today as they were last month?

So many behaviors are occuring in the classroom that we often are inclined to throw up our hands and say in effect that it is an impossible task to precisely measure and record anything. Really now, with all the constraints under which a teacher must work, can he be expected to take time to measure the behaviors of students in his classroom? The answer is an emphatic "yes." The only adequate way to know when something has effected pupil performance is to obtain some measure of that pupil's behavior regarding the particular task or concept that you have prescribed for the learner. Now, quite obviously, a teacher is not going to measure every bit of pupil behavior and since you have already learned quite a bit about pinpointing behavior, we need not expand on what to measure, but concentrate on how to effectively visualize what we have measured.

What we need is a way to measure and display information that encompasses some of the characteristics of performance measurement described by Skinner, expanded upon by Lindsley, and reported by Kunzelmann (1970). We need a method that can do the following:

(1) Presents data in an orderly manner. We teachers have so much paper work to do that we cannot afford to be disorganized.

(2) Can be reproduced. We require a method that can be used repeatedly with the same pupil and with different pupils for different curriculum areas.

(3) Can be applied to the behavior of an individual without comparing him to a group. We usually want to know how Johnny is doing compared to Johnny, not compared to the class or some normative group.

(4) Provides a continuous report, not a one or two time measure.

(5) Can be applied by the learner as well as by the teacher. If a teacher has 30 pupils, how nice to have 30 individuals measuring their own performance rather than one teacher trying to monitor each individual.

(6) Can help the teacher in deciding what to do next. We ought to be able to make decisions based upon data that supports a high probability of success.

(7) Can show us as much information about a pupil as possible whenever we change the conditions of learning.

Another way of saying it is that a teacher needs an objective record as a basis for planning a program for each pupil and this record ought to have as many of the above characteristics as possible.

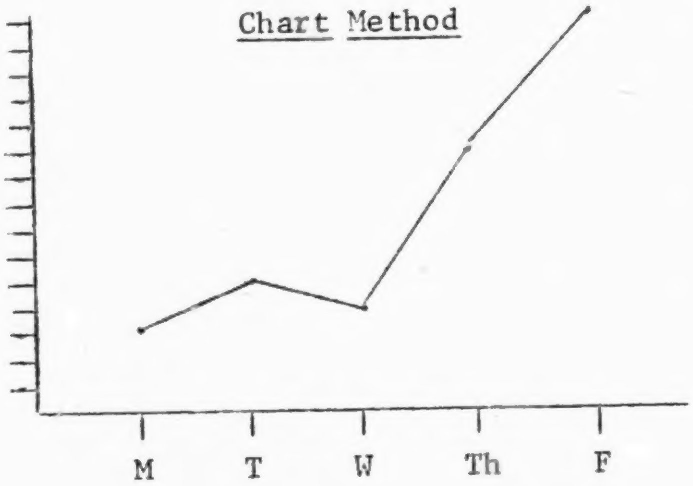
## Charting -- A Method for Handling Measurement

We will assume that you are convinced of the importance of using measurement in the classroom (and of course we know that you have been using various forms of measurement throughout your teaching career) and so let us proceed to charting. What is it? Simply a method to display what we have measured. We could write down a list of figures on a piece of paper, but the more figures we write, the more confusing it becomes, and even if it makes some sense to us, it probably will be difficult for anyone else to understand just what is happening to a particular pupil. Look at the following example:

"Correct Arithmetic Problems Per Minute for Johnny"

Raw Data

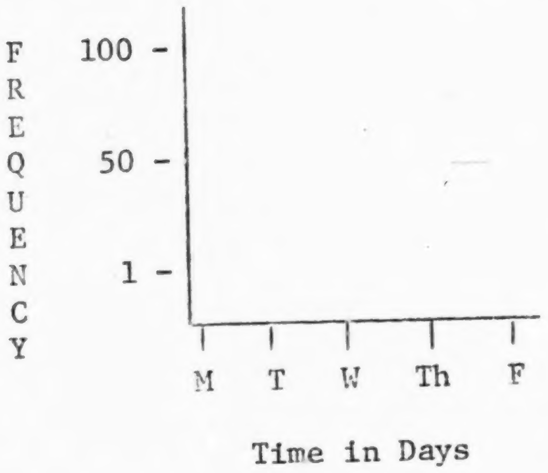
Monday 3
Tuesday 5
Wednesday 4
Thursday 10
Friday 15



Which method of displaying the data is most meaningful to you as a teacher in answering questions about Johnny's arithmetic performance and in making plans for future lessons? Suppose that you had six weeks of data -- the advantages of a graphic display would become even more obvious. Charting is a means of visually observing the changes that are occuring in a pupil's performance.

You may chart percentages of some behavior you have pinpointed, which certainly can be useful, but many educators are in agreement that rate is the best measure to encompass the seven items discussed in the preceeding section. Some people prefer to chart on regular graph paper while others prefer to use 6-cycle semi-logarithmic chart paper. The latter has several advantages, among them are the magnifying of distances between units at the low ranges, of converting absolute data into a relative comparison, and of handling occurrences ranging from once per day to 1,000 times per minute.

A simple method of charting requires a piece of paper and a pencil and a watch with a second hand. Time (in minutes or days) is often represented across the horizontal line of your chart, or perhaps you represent trials or presentation on this axis. The vertical line may represent percentage, movements, or frequency.



You may record a behavior that you are attempting to accelerate or decelerate on your chart, or perhaps you will record two behaviors on the same chart.

Without getting hung up at this point on the type of chart paper you use, we hope that you see the importance of visually recording your data in a meaningful manner. Try it! You will find that it not only helps you to be a better teacher, but your pupils will "turn on" to being able to see their own progress and what great information to have for that next parent-teacher conference. Your principal might even be convinced to give you a merit pay increase on the basis of your hard data on pupil performance. After all, you will be able to show that learning has occurred!

## EXERCISE ONE: CASE HISTORY

The child that you will see in this video tape was approximately 5 years of age when these sequences were taped. His medical history indicates that he was under treatment for staggering spells of unknown origin; otherwise his physical condition was basically normal.

His major problem was distractability and hyperactivity. As a matter of fact his behavior was so disruptive that his parents were obliged to keep all the cupboards in the house locked and to take turns standing guard over him at night. His physician confirmed his hyperactive behavior pointing out that he was unable to get him to sit still long enough to complete the tracing and copying tasks involved in his neurological diagnosis. Prescribed medication had little effect on the child's hyperactive behaviors.

Upon his entry to the school it was first necessary to train him to sit still long enough that the teaching process could at least begin. This was accomplished by rewarding him for sitting in the chair for increasing lengths of time until he would sit in the chair for at least 20 minutes.

During the first segment of this tape you will see him learning to correctly name colors. Note that the teacher (his mother) will not present him with the colored card unless he is attending to her. Since he must correctly identify the color before he can receive his reward he tends to focus for the most part on the task.

This segment consists of 20 trials, that is, the colored card will be presented 20 times to the child. We intend that this first counting and graphing exercise be as easy as possible for you; we have therefore selected an exercise in which you will be able to tell quite clearly when the child has correctly named the color because the teacher will present him with the reward when he does so. Ignore any instances of multiple verbal responses on the part of the student and focus on the delivery of the reward as an indication of a successful trial.

The data that we would like you to graph on page 16 of your manual is the ratio of correct responses to the number of trials. Your task is to count the number of correct responses made and divide that number by 20 and plot the appropriate percentage on the graph above the horizontal line directly over the section marked "1st 20 Presentations".

During the second segment of 20 trials which was taped the following day you will notice an extremely high level of background noise. Recall that this child has had a problem of distractability and observe the extent to which the child attends to the background noise. Here again we want you to plot the ratio of correct responses obtained during these 20 trials above the section of the horizontal line marked "2nd 20 Presentations."

You will notice that another behavior has already been graphed for you. This behavior is the per cent of time during the 20 trials when the child's head is turned 90 degrees or more away from the teacher. We refer to this behavior as non-attending behavior, and it was observed to have occurred during these two sessions approximately 7% and 10% of the time respectively. We consider this to be satisfactory for a child with a history of distractability and hyperactivity such as reported here.

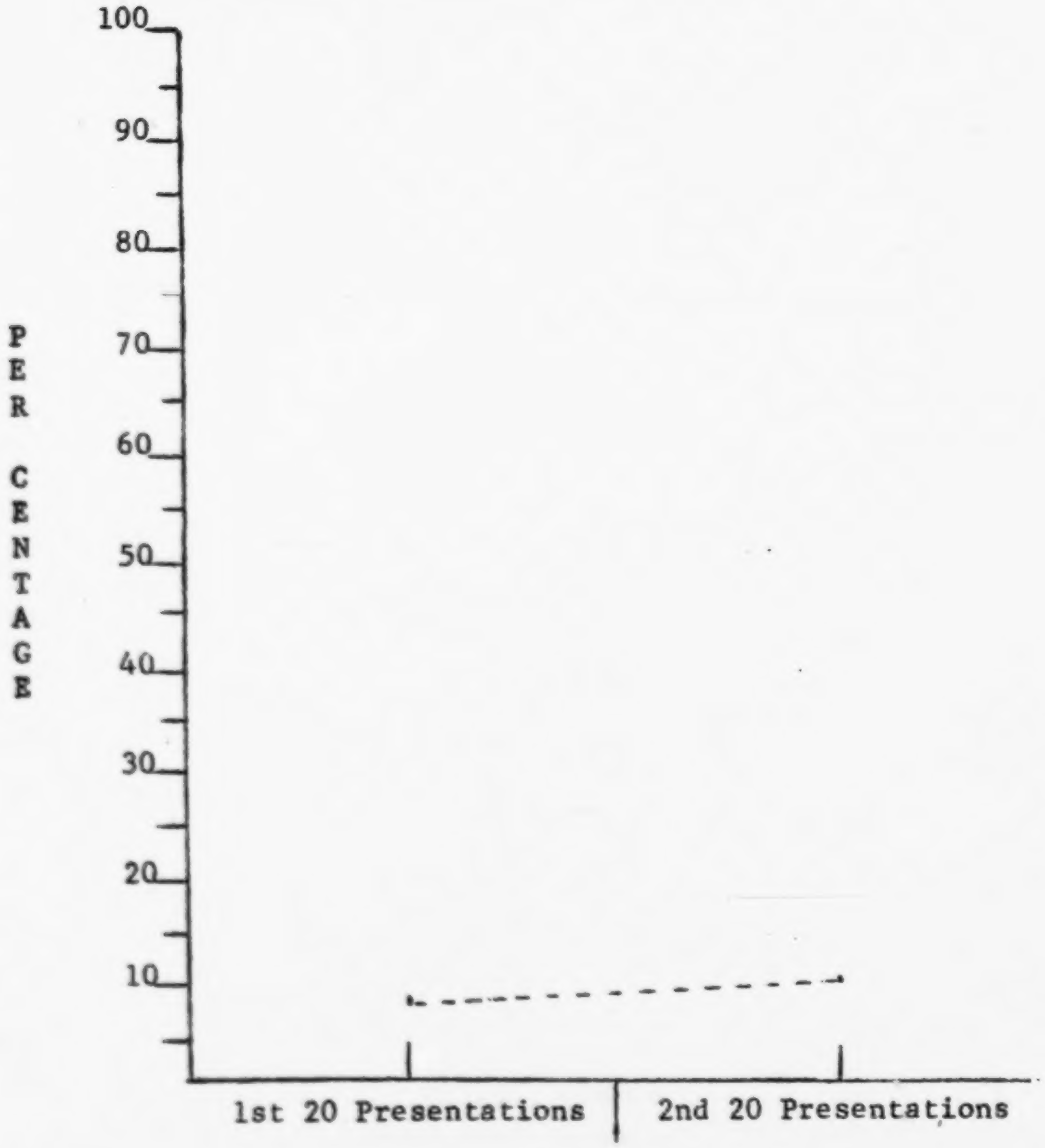
## EXERCISE ONE: FOLLOW UP DATA

The youngster that you have just seen will enroll in the public schools this coming fall. At present, he participates in 30 minutes pre-school activities with few instances of hyperactive behavior observed. Individual sessions can be conducted for longer periods of time with no difficulties.

Achievement and language data obtained recently indicate that he is now slightly above the norm for children of his age, and the use of drugs is no longer considered necessary.

## Counting and Graphing: Exercise 1

1. Behavior Graphed
   A. Per cent correct color naming responses to 20 presentations of a colored card (solid line).
   B. Per cent of time not attending to instructor, i.e., student's head turned 90° or more away from directly facing the instructor (dashed line).
2. Consequence Provided
   A. Candy presented with verbal approval each time the student correctly names the color presented.
3. Special Conditions
   A. During the second 20 presentations, a high level of background noise was deliberately created.



## EXERCISE TWO: CASE HISTORY

The young boy shown in this sequence was about 6 years of age when this tape was made. His previous medical history indicated that he was treated for meningitis at age 6 months, but otherwise his physical examination revealed no clear indication of physical impairment. He was described as a generally hyperactive child and was receiving 164 mg. of drugs a day in an attempt to control his hyperactive behavior.

His behavior at home was characterized by frequent incidences of head banging (as many as 200 during an eight hour period), tantrums (an average of 40 per day) and destructive behavior towards inanimate objects (an average of 8 per day).

His behavior in the school was similar to that observed at home, except that head banging increased in frequency to a maximum of 530 times per hour.

We would like now to take a few minutes and ask you to make a prognostic statement for this child. Imagine that he has been referred to you and that all the information that you have on the child is that which we have just given you. Indicate on the paper provided what you believe to be the chances of this childs benefiting from an educational program. Use whatever format you find convenient and when the group has completed the task share your prognosis with the other group members.

Since the child had no functional speech when he entered the school, it was decided that the development of speech would be concentrated upon first. In order to begin with the first stage of speech training, which involves teaching the student to imitate gestures and verbalizations made by the teacher, the child's disruptive and self abusive behaviors had to be eliminated. Since the head banging is potentially the most dangerous behavior that the child engages in we have asked you to record the frequency of this behavior per minute throughout the exercise using the graph on page 20 of your manual. To assist you in this task we will indicate when 55 seconds have passed by saying "ready" and at 60 seconds we will say "record." Record the number of head banging instances you counted above the appropriate minute on the graph. You will have to work fairly rapidly since the instruction to record will also signal the start of the continuous counting process. For the purpose of this exercise consider head banging to be banging the head on the table or chair and hitting the head with the arms or hands.

During the first four minutes of this tape the teacher will simply ignore the child as long as he is engaging in any disruptive behavior. For the purpose of this presentation we will refer to this four minute segment as Base Line session. The purpose of a Base Line recording is to determine the frequency of the behavior or behaviors of concern prior to experimental intervention.

During the next eight minutes the teacher will leave the child alone when he engages in these behaviors. She will return to him only when he has remained silent for 10 seconds. The latter procedure is referred to as Time-Out. This simply means that the child is removed from all possible sources of reward as long as he is engaging in undesirable behaviors. In this example the teacher leaves. In other instances the child may be removed to a cubicle or adjoining room until he has not engaged in the undesirable behaviors for a specified length of time. Time-Out procedures have been shown to have a dramatic effect in eliminating undesirable behaviors, as you will note during the next eight minutes. Continue to count the frequency of head banging during this segment beginning with minute 5 on the horizontal axis of your graph.

## EXERCISE TWO: FOLLOW UP DATA

Regarding this child's progress during the three months he was enrolled in school:

A. Head banging was reduced to an average of 1.5 times per school day with no incidents of head banging occurring on 57% of days.

B. Both tantrum and destructive behaviors were observed to occur on the average of less than 1 time per day.

C. Imitation of teacher produced motor movements and sounds were maintained at approximately 90% overall.

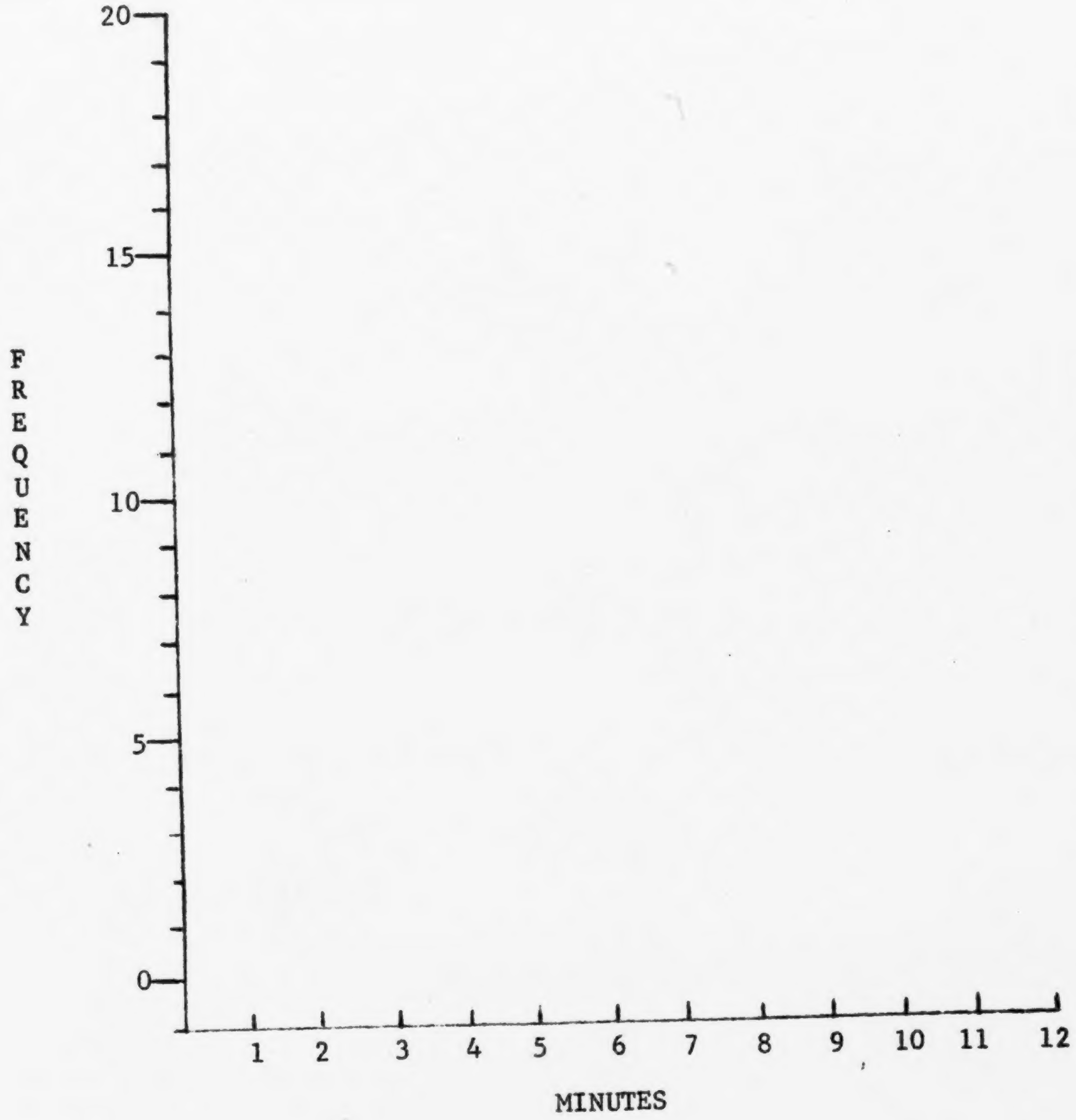
At the completion of the school year the child's parents were transferred to a new job and his training at this center was terminated.

In this final tape segment which you will not have to count you will see the child after the disruptive and self-abusive behaviors have been satisfactorily eliminated. Note that during this segment he generally follows the directions given by the teacher and attends at a satisfactory level to the teacher throughout the session.

However substantial you may feel the contrast to be between this segment and the preceeding two you must remember that this child has at this point still achieved only a very small number of the skills necessary in order that he can satisfactorily function in the academic world.

## Counting and Graphing: Exercise 2

1. Behavior Counted
   A. Self-abusive behavior, specifically: Banging head on table, chair, or hitting the head with arms or hands.
2. Consequence Provided
   A. Instructor left the student alone when he engaged in any disruptive behaviors and returned when the student was quiet for at least ten seconds.
3. Special Conditions
   A. First four minutes recorded are baseline.



## EXERCISE THREE: TOKEN SYSTEMS

Usually teachers are encouraged to maintain the motivation of their students through the use of materials which are in and of themselves "interesting" and "stimulating" and by rewarding appropriate behaviors with social or symbolic rewards, i.e. letter grades and teacher approval. While this practice, however difficult to define accurately, may prove satisfactory in some situations it is dramatically obvious that it is not equally satisfactory in all situations.

Today we will look at one of those other situations. During the next 8 minutes you will see a video tape of nine children in a classroom for the emotionally disturbed.

At the completion of this segment we would like each of you to:

1) prepare a list of the problem behaviors that you observed, and

2) role play the position of a resource or master teacher and outline a strategy for dealing with these problems that a student teacher could use. Share your lists and suggestions with the group on completion and then pass them on to your group leader. We would like you to spend no longer that 15 minutes on this task.

You may have noticed the lady seated at the table in the front of the class with a large timing device. She is obtaining a base-rate on the disruptive behaviors in the classroom. In this particular sequence she was counting the number of children who were out of their seats at 20 second intervals.

The procedure that we will introduce to you today has proven extremely successful for dealing with the kind of problems that you have just seen. It is referred to as a Token Reward system. The Token Reward system is easily distinguishable from the traditional method of teaching simply because of the fact that instead of relying on teacher approval, grades and intrinsically interesting materials to maintain appropriate behaviors the token system rewards the student for appropriate behaviors with a tangible object that he can exchange for activities or objects which are of interest to him.

The tokens themselves are of course symbolic objects. Poker chips, foreign money and check marks have been used with successful token programs. Let's see how we might approach the classroom situation you have just seen using a token system.

First we would of course have to explain to the students what the token system was all about, and we would have to arrange for the tokens to have a purchase value, that is, we would have to work out a token cost for activities and objects that each individual student desires. We would also have to explain to the students those behaviors for which we are willing to pay tokens and when they will receive their tokens for engaging in desired behaviors.

For example, suppose that you wanted to reward students who stayed in their seats with a specified number of tokens; in order to do this you might make use of an ordinary kitchen timing device with a buzzer that goes off on the average of every 5 minutes, although the interval between buzzes might be as short as 1 minute or as long as 20 minutes. Each time that the buzzer sounded you would pay each person who was sitting in his seat the number of tokens agreed upon.

In order to determine the activities and objects for which the tokens can be exchanged and the relative costs of each, a student menu can be developed. A student menu consists of those activities and objects that the student wants, usually arranged in order from most to least desired. Costs are established accordingly. Page 26 of your manual illustrates the menu that one of the students in this class established with his parents.

Menus were also established for in-school activities; for example, 15 minutes of painting privileges could be obtained for 100 tokens, an extra 5 minutes of recess could be obtained for 300 tokens, etc.

The effects of initiating a token system are usually quite dramatic and behavioral changes are readily observable. Nevertheless, children will not ordinarily be rewarded in this fashion throughout their academic careers therefore it is necessary to remove the token system gradually until the appropriate behaviors are maintained with the previously mentioned and more traditional rewards.

We will now show you some selected steps that were followed in establishing the Token system with this class. Only two students are shown in the following video tapes. This is solely for the convenience of the cameraman. Ordinarily the students are taught in groups of four or five, with the regular classroom teacher working with one group and a teacher aide with the other.

The first sequence illustrates the simultaneous rewarding of several behaviors. In this sequence the students are rewarded for correct responses to the task and appropriate attending behavior. Disruptive incidents are ignored and you will notice that the tokens can be exchanged immediately for another extrinsic reward, in this instance candy.

You may recall these two students from the previous tape segment. The child on the right did not respond at all during the previous segment while the youngster on the left attempted to respond several times but was always shouted down by the class.

During the second segment correct responses and appropriate attending behaviors are rewarded and disruptive behaviors ignored but the tokens can now no longer be exchanged immediately for another extrinsic reward.

The student now must wait until he has completed the task before exchanging his tokens.

During the final segment which was taped approximately six weeks after the token system was initiated, the tokens themselves have been almost completely replaced by check marks which are recorded by one of the students in the class. In this segment the following procedure is implemented:

1. those students who do poorly in math are paired with those students who do well;
2. the better math student is designated the student teacher and the poorer one the student;
3. the student teacher has 30 flash cards with math problems on them which he presents to the student;
4. when the student teacher indicates that the student has given the right answer, the student raises his hand and the recorder gives him a check mark on the chalkboard;
5. both the student teacher and the student receive a point for each check mark that the student earns. These points can be exchanged in the same manner as the tokens were;
6. tokens are awarded by the regular teacher to the student teacher when he engages in appropriate teaching behavior, for example, saying, "that's good," when the student provides the correct answer.

Notice that it is not necessary at this point to reward the students for staying seated or attending to the task at hand. The students are so involved in the task that incidences of undesired behaviors simply do not occur.

The Token Reward system was maintained with this class throughout the remainder of the school year. Disruptive incidents were almost completely eliminated and several of these students were placed back into the normal classroom after making satisfactory behavioral and academic progress in this classroom.

This concludes our brief look at the Token Reward system for today. We would of course like to have been able to have spent more time on the subject with you. If however we have been able to stimulate your interest regarding the use of the Token Reward system and/or the Behavior Modification approach to teaching we will consider our effort today to have been richly rewarded. The literature on Token Reward systems is fairly extensive and we have included herein a list of some of the relevant books and articles which you may find of value should you wish to explore this technique in greater depth.

## AN EXAMPLE OF A STUDENT MENU

| | ITEM | TOKEN COST |
|---|---|---|
| 1. | Movies | (10,600) |
| 2. | Hot Wheel Set | (10,600) |
| 3. | Day at Amusement Park | (10,500) |
| 4. | Trip to visit relatives | (10,000) |
| 5. | Goat Farm | (5,300) |
| 6. | Tinker Toys | (5,300) |
| 7. | Dinner at the teacher's house | (5,300) |
| 8. | Hockey game | (5,300) |
| 9. | Tennis shoes | (5,300) |
| 10. | Picnic | (5,300) |
| 11. | Model airplane, boat, etc. | (2,650) |
| 12. | Fish and Chips | (1,680) |
| 13. | Swim at the gym | (1,680) |
| 14. | Make Brownies | (1,120) |
| 15. | Go to the drive in | (1,120) |
| 16. | Make pizza pie | (1,120) |
| 17. | Ride bicycle | (1,120) |
| 18. | Kite | (1,120) |
| 19. | Make Popcorn | (560) |
| 20. | Favorite TV program | (100) |

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Earning rates - Maximum

Approx. 560/day
Approx. 2,650/week
Approx. 10,600/month

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# ON
# BEHAVIOR MODIFICATION

# BIBLIOGRAPHY

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# A Taxonomy of Variables for Training Teachers in Special Education

Alfred L. Lazar
California State College, Long Beach

Several weeks ago, this speaker had a rare opportunity to hear and speak with Professor Sidney Hook, the noted educational philosopher, who was visiting our campus. In his talk it was pointed out that " freedom to learn is a human right " and that "freedom to teach is an earned right." Both of these assertions serve as a foundation for planning and developing teacher training programs. Inherent in both of these notions are some rather interesting implications for special educators and regular educators alike, whether at the elementary, secondary, or college level of instruction. How often have some of us violated the students right to learn because of limited resources and appropriate equipment and facilities, inappropriate instructional learning plans, lack of knowledge and skills in understanding human behavior, and a host of others that can be added to this list. If we are to training and develop individuals that will serve as teachers capable of respecting the student's "right to learn" such individual must "earn this right to teach." Thus, it becomes a major responsibility of teacher training institutions to offer a viable and comprehensive training program that will provide the individual with knowledges, skills, experiences, understandings, and values so that the right to teach can be earned.

In addition, Hook cited three other aspects worthy of note and discussion: These three other factors involving student-teacher or learner-teacher relationships are as follows:

1. The learner or student has a natural right as part of the consultation process in planning and developing learning situations, but does not have the right for decision making in overall policy.

2. The learner or student has a right to have an individualized curriculum and learning program as much as possible to meet his unique learning needs and characteristics.
3. The learner or student has a right to learn at his own rate of learning based upon innate capacities and constraints.

One might question, whats new about these three things ? The response is that nothing is really new about them, but that these three aspects have been frequently and greatly violated by many special class teachers which results in the reduction of their teaching role effectiveness as managers of learning. In some cases, students in training as special class teachers have heard these three assumptions pronounced in either dull or stimulating lectures, but irregardless, the individual in teacher training has not been afforded sufficient life situations to practice them.

The purpose of this brief paper will be to remark about some of the variables in our past and present teaching models for special educators, make reference to some of the current trends and models being advocated, and present a brief review of the G-SOME Systems model as a possible training model with a sequence of variables that might be considered for translating into training programs. Finally, a series of critical questions will be asked and organized into a taxonomy that might direct reactions from both the interrogators to this position paper, and the audience.

## SOME REFLECTIONS ON PAST/PRESENT PROGRAMS

It might be appropriate at this time to look in retrospect at some of the characteristics of training programs in the past and some of the assumptions concerning them that continue to linger and influence the present status of teacher training. This might be achieved through use of the question technique, so that further discussion will be stimulated upon part of the interrogators and the audience, since this is a form.

1. What have been the pros and cons of child-centered versus the teacher centered curriculum ? In the case of both of these models for curriculum building and in training teachers to service such models, we have failed to a avoid an artificial polarization. The real issue is for teacher training institutions is to focus upon and turn our individuals that are learning centered. In this latter model of and for curriculum building polarization is avoid, and both the rights and needs of students and teachers are considered equally and as part of a unified effort. The danger and disadvantages of both the child-centered curriculum and teacher-centered curriculum was to provide some rather ritualistics role expectancies. Furthermore, in the case of both of these latter models, the use of medical or psychological labels of non-educational relevance are pupular and have been used to an exceedingly large degree. Thus, a serious review of the literature on methods and materials reveals numerous sources that cite the DO'S and DON'T for teachers via a cookbook approach, and the CAN DOS AND CANNOT' DOS OF THE VARIOUS CATEGORIES, i.e. the mentally retarded.

2. Let us consider some of concepts that have been polarized by some individuals, and as a result have reduced teacher effectiveness and curriculum development:

## LIST OF POLARIZED CONCEPTS

| | | | |
|---|---|---|---|
| A. | only individual instruction | versus | only unit methods & group instruction |
| B. | cognitive | versus | affective |
| C. | graduate levels of training | versus | undergraduate levels of training |
| D. | teacher evaluation only | versus | pupil evaluation only |
| E. | medical terminology for education<br>i.e. BI, MR, SL, | versus | psychological "mentalistic in nature" for education<br>i.e. IQ, "whole child" |
| F. | good something | versus | bad something |
| | | (effectiveness) | |
| G. | context | versus | process |
| H. | academic | versus | experience |
| I. | special | versus | regular |
| J. | abnormal | versus | normal |
| K. | teacher as artist | versus | teacher as scientist |

It is a small wonder that the extreme use of such polarized terminology has had an adverse effect on training effective scientifically oriented teachers.

Thus, there is a real challenge for all of us to work in a concerted and unified manner to reduce and eliminate when possible such verbal pollution that is only inimical to effective teacher training.

3. There is a need to identify and make a role analysis to ascertain what specific skills, knowledges, and values that an individual will need in the roles as teacher. In more specific terms we need to identify both specific and universal competencies. Universal competencies would be characteristic of all teachers regardless of level of instruction and nature of child being assisted, whereas specific competencies might be needed in specific instances, i.e. working with blind childg braille as a specialized technque. Too long we have presented a picture of teacher as a lover of children, dedicated servant, and other such stereotypes. It is far more important to respect the right of children to learn rather than smother them with love that only retarded executive indeoendence. Please note, this is only in the case of individuals working out personal problems, it is not implied one should not love children per se.

4. Even today, in nearly all states, most teacher training programs are based upon the following variables and assumptions:

a. credential needs

b. 16 or 12 weeks of course work in units or hours

c. non-sequences or adhered to sequence of course work -- bulletins and catalogs might imply but violated in practice and advisement procedures.

d. courses and course outlines based upon the professor exercising his licence. In some instances the writer has heard of efforts at team teaching, independent studies, power examinations, and so forth to assist in individualizing college level instruction.

e. Need to develop critical task performance criteria rather than grades per.se.

5. What are some of the characteristics and assumptions underlying the scientific teacher ?

a. that diagnosis and assessment is a shared effort between the teacher and significant others in the school situation, i.e. psychologist, nurse, etc.

b. that educational and instructional goals are generally achieved through a chaining effort of objectives.

c. that materials and methods are relative in time and space, and are only a means to an end.

d. that human variability will require an assortment of methods and materials to be used

e. that the teacher must realize when progress is slow or ineffective, the cause might be centered in other variables rather than the child, such as the teacher failing to control and manipulate critical variables in learning.

f. that the special teacher can differentiate between individual attention and individual instruction.

g. that each teacher must develop her own logical model to facilitate learnings, new imput, and control of new data on methods, materials, assessment techniques, and so forth when they become available. A system for information storage and retrival must be developed.

h. that feedback and other forms of evaluation be used in a systematic and unified way for developing learning plans.

i. that there is a difference between learning plans and lesson plans.

j. that knowledge and skill development be based upon source and sequence.

k. that the teacher assume accountability for the learning activities to be managed.

6. Which comes first, assessment or objectives. The difference between the military-industrial model and the G-Some model. A real issue that needs to be coped with by new teachers.

7. How can the learning center concept eliminate the needs and uses of the present catagorical labels ?

reading center
arithmetic center
science/social studies center
fine arts center & motor development
applied arts center & motor development
group dynamics center

To service the above will require the clinical type type teacher that many are beginning to talk about in the literature.

## THE G-SOME MODEL FOR TEACHERS

This might assist in planning a curriculum based upon identified competencies needed, and assist in the organization of variables in a organized and systematic manner:

| G Variables | S Variables | O Variables | M Variables | E Variables |
|---|---|---|---|---|
| General<br>Factors | Survey &<br>Assessment | Objectives<br>Scope &<br>Sequenced<br>Curriculum | Modality<br>Motivation<br>Materials<br>Means<br>Mode of learning | Evaluation |

The purpose of the G-SOME System is to provide the teacher with a model for organizing new ideas and theories into a unified and organized logic system that will assist in decision making regarding several variables that are involved as part of a learning situation. The G- Some System has five major sequenced components that requires the use of both vertical and horizontal feedback loops. Within each of the give major components are a series of variables and critical questions to be dealt with by the teacher as part of the decision making activity. Such a system prevents teachers from operating in a fractionated manner, or in attempting to use materials and ideas in isolation rather than as part of a system. (Banathy, 1968) defines a system as have three basic parts:

a. purpose  
b. processes  
c. components

The G-Some system meets this criterion. Thus, it becomes evident that the G-SOME System requires a thinking and creative individual for becoming a teacher capable of making many critical decisions during a days work while working with children. This view differs from some who would make the teacher only a doer using a prefabricated curriculum. Those who would reduce the teacher to such role, are both unrealistic and still support modes of curriculum planning and developing that have resulted in many of the present failures in the educational system to meet the extreme degree of human variability. The point is that this speaker thinks we have come along way since normal school training days, and that if you uses a time line approach in viewing progress we have made great strides. Yet, we must still continue to make progress where we have not achieved success. Further research and theory building is needed in these areas.

## SOME CRITICAL QUESTIONS FOR TRAINING

1. What are the specific knowledges needed by the student special education training ?
   a. facts
   b. principles & generalizations
   c. theories and laws of human development and learning
2. What are the specific skills that need to be practiced and demonstrated ?
   a. diagnostic & assement
   b. objective writing
   c. materials selection & development
   d. rationale for learning theories used
   e. evaluation skills -
3. What should be the relationship in training between observation and early participation in the field and work on the campus?
   a. kinds and levels of observation
   b. clinical experiences
   c. instructional media experiences
   d. seminars and small group discussions
   e. lectures
   f. films and audio tapes, etc, video tapes

4. What should be the relationship with other ancillary people in the school and concurrent training on campus?

## SUMMARY

In conclusion we want to develop a scientifically oriented teacher to work in a working learning center type school of tomorrow, using a systematic procedure as the basis for decision making. We want a teacher as a leader for learning with the students under her operational control.

# Teacher Preparation in COHI

June Mullins
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The Special Study Institute on Current Concerns in Training of Teachers and Other Professional Educators of Crippled Children provided an intensive communication between about 80 participants representing universities, colleges, government agencies, schools and institutions, country wide. The participants responded in advance to a questionnaire which also served as the organizing format of the 8 discussion groups, which remained in tact and met twice a day for 3 days. During this time, participants concerned themselves with aspects of their professional responsibilities literally all of their waking hours. Such an experience in one sense was a highly personal one resulting in learning, change of attitude, and of professional growth in the stimulating atmosphere of deep committment to the field, honest and profound differences of opinions and emphases, and the pervading spirit of respect and helpfulness of one's colleagues which Dr. Connor and her associates so successfully encouraged.

It is difficult to assess to what extent one's own perceptions are actually representative of the group and I'm sure the editing committee has shared that same concern in its gargantuan task of abstracting the many outcomes of the conference. Having expressed the reservation that I may have misrepresented or misread the consensus on some items, I'll proceed never-the-less to attempt to relate the conclusions of the participants on policy to their conclusions on aspects of Teacher Training Programs in the Area.

## II. Identification of the Population

Dr. Wyatt consigned the group to reexamine the rationale for the area COHI and seriously to question its organization and mode of operation.

The participants seemed of overwhelming consensus on the following point: A group of children in deep need of services are rather exclusively entrusted to professionals operating under the rubric COHI. Whereas there is disagreement on nomenclature, optimum organization, and method of dispensing services, there is emphatic committment to these children and a determination that their needs not be forgotten in the event of reallocations and reorganizations. It is of utmost importance for educators to assure that COHI children have educational evaluation and services and these can only be supplied by educators. Medical and other para educational personnel cannot reasonably be expected to assume these responsibilities, although in the past they have occasionally had to do so by default.

The relation of the affirmation of the integrity of the COHI population to teacher preparation is obvious: teachers must be trained who can serve this population, or these children will be prevented from fulfilling their highest human potential. Under whatever form or nomenclature, COHI teacher preparation must continue.

Information on federal and state funding, provided by Mr. Sattler, shows a continued government committment to institutions providing this preparation. The funding patterns of support are becoming more flexible to allow increasingly for the needs of particular institutions and populations.

## III. The Needs Within the Population

The characteristics of subgroups of the population were carefully considered, as noted by Miss Wald. There was agreement that there is a considerable group of children whose physical problems or deformities do not preclude normalcy in areas of learning. I think there was unanimity in belief of the principle, that these children should be in the mainstream of education whenever feasible. Feasible in this context does not mean convenient, but, rather, whenever humanly possible.

It was feared by some participants that the above statement implies that special educators should wash their hands of physically limited normal learners. Actually such children provide challenges for special education teacher training programs which have too frequently been ignored.

Whereas mainstream educators have shown reluctance to deal with COHI children in some cases, special educators have perhaps not shared with them the knowledge and the on going support which could do much to allay fears and smooth integration. Such a dychotomy between special education and mainstream education acts to the detriment of COHI children and probably all exceptional children. Different organizations for instruction were suggested to supplant segrgated and isolated self contained classrooms and schools. These included the establishment of resource rooms in regular schools, special consultants to regular classroom teachers, and flexible flow of children from special to regular classes. For example, teachers and administrators need help in the removal of architectural barriers, setting up rest, medication, and therapy schedules, and adapting prosthetic and orthotic devices for classrooms.

The strong implication for special educators that these normal learning crippled children illustrate is the need for communication, cooperation, and understanding between mainstream education and special education.

At the conference participants considered what could be done at the teacher training level to assure that mainstream and special education teachers understand each other and work together. Various organizations for instruction and practica, as well as course contents, were suggested.

An example of facilitation of this principle occurred in the School of Education at the University of Pittsburgh. Because of expressed interests of undergraduate education majors a course was developed with focus on the handling of exceptional children in the regular classroom. Students themselves have claimed an entirely new attitude toward exceptional persons as a result of the experience of the course.

If programming for COHI children is to become more flexible with respect to integration, new kinds of educational specialists must be trained through newly conceived courses, and practica must be developed with close liason of mainstream and special education for both regular and special education students.

Another important subgroup in the province of COHI is the multiply handicapped child whose physical handicap is often secondary in academic consideration to his perceptual and cognitive problems. The cerebral palsied child is frequently such a multiply handicapped child and perhaps the most challenging of all exceptional children for the educator. Dr. Rosner addressed himself to the learning problems of the child who lacks visual-motor or auditory integreties.

The competencies necessary for teachers who will work with multiply handicapped children are of a wide range and variety. The following list is illustrative rather than exhaustive.

1. Ability to work cooperatively with the rehabilitation team and with parents in the education of the multiply handicapped child.
2. Knowledge of normal growth and development, physical and psychological.
3. Understanding of the psychological and educational implications of various crippling conditions and health impairments.
4. Ability to identify and remediate academic deficiencies and teach to the academic strengths of children with a wide variety of physical, perceptual, sensory, cognitive and emotional problems.

Since these competencies must assume a broad range of areas, courses and field experiences, it was felt by some participants that programs for teacher preparation should be individualized on the basis of each student's particular abilities and interests, such as work with children in hospital or homebound settings, work with physically handicapped adolescents or young children, work with multiply handicapped slow learners. Such individualization provides in debth study in specific areas and must be balanced with whatever broad knowledges are deemed necessary to teacher competency for all teachers.

The multiplicity of problems and the great challenges of the complex and varied group of children in the area of COHI have implications for programs of doctoral study. I believe the remarks of Dr. Lord and Dr. Rusalem are consonant with the position that doctoral study should not focus on physical handicap, or any medical classification per se. Rather, advanced students should be concerned with research and development pertinent to the learning and adjustment problems of the population of exceptional children that have been identified.

## IV. New Directions of Educational Emphasis

In teaching pupils whose individual differences and competencies are so varied, the well trained COHI teacher should have great exposure to the new methods and materials which present technology and pedagogy afford.

The participants were able to share with the group innovative programs, such as Dr. Bigges, involving a systematic presentation for teacher education, and microteaching demonstrations such as that of Dr. Berko.

The speakers well illustrated the close relationship needed between academic and field experiences for optimum teacher preparation. Ideas such as extended field experiences, during summer months, or alternating with school classwork were discussed. Individualized study and the use of examinations for demonstration of competency where suggested as an alternative to class credit hours which most institutions now require.

In Chairman, Dr. Blaustein's group a great interest was evinced in very early educational intervention with handicapped or high risk children. It was seriously proported by some members of the discussion group that parent education and counseling might actually begin before birth, such as in the case of a high probability of the transmission of a hereditary condition or a known abnormality of the fetus. It was felt that many secondary but serious psychological and learning problems of the handicapped child reaching school age could have been mitigated or prevented by early educational intervention.

The committment to early childhood invention among institutions of higher learning seems to be increasing. The extention of teacher preparation programs in order to serve the very young exception child necessitates new competencies and innovative organizations for instruction. For example: (1) the student teacher may have to learn how to adapt to the child's home as his classroom for infant teaching. (2) The teacher may need to develop expertise in teaching parents how to teach their babies, thus be a teacher trainer himself. (3) The student teacher will need to learn ingenuity and flexibility in development of curriculum and methodology in the new and experimental field of early special education.

Much thought was given to the teacher's responsibility in preparing the child for his eventual optimum adjustment in the adult world. Some participants stressed the need, and occasionally the inability, of educators to plan curriculum and undertake instruction that has relevance to realistic life goals to which physically handicapped children can aspire. The implication for teacher training institutions is clear. Teachers will need to develop competencies relating to the provision of educational programs for teenagers that provide background and transition from the school to the world of work. Therefore, a close liason is recommended between special education, vocational education and the field of rehabilitation.

## V. Summary and Conclusions

The principles and policies elucidated in the Special Study Institute resulted in the following conclusions for COHI Teacher Preparation.

1. Since teachers are needed to serve the educational needs of a very real and difficult group of children, specialized teacher training programs are necessary.

2. The goal of integration of crippled and sick children in mainstream education to the fullest extent suggests the need of new kinds of special educators who can aid schools and communities toward achieving this end more successfully.

3. Teacher training programs should expedite understanding and cooperation between mainstream and special education to the mutual advantage of the fields.

4. The complex problems of the multiply handicapped COHI children might be best met by providing students with individualized programs of special training for in debth experience and training related to the education of COHI children and interests of the teacher's children.

5. Programs for doctoral study should not be based on medical classifications but rather on research and development dealing with educational and psychological variables in relation to COHI children.

6. It is incumbent upon teacher training programs to make every effort to adopt innovative methods and materials afforded by modern pedagogy and technology.

7. Since very early intervention is often obligatory for a crippled child's optimum growth and development, educational institutions for teacher preparation should focus on program development in early childhood special education.

8. Teacher preparation programs should afford opportunities for the student to understand his role as a future teacher in relation to his pupils' vocational and rehabilitative needs.

# Where is the Switch that Turns Teachers on?

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*Visual* *Sound*

The thrill of watching or riding in a high performance car is known to most teenagers and to many adults.

The excitement of turning the ignition switch, hearing the thunder of the starting engine, feeling the surge of power, enjoying the speed of acceleration has been described by colorful adjectives that stir one's heart and kindles the emotions.

The Grand Prix! Daytona! and Sebring! These are classic examples of places where engineering skill harnesses power and transforms it into fluid motion which through the ages has been recorded in music and prose -- and displayed in visual media.

Every good mechanic knows that mechanical failures cause trouble on the track or road requiring pit stops or adjustments at a service station.

Sometimes this power is easily harnessed and ready to turn on the largest of engines....but other times, it is sluggish and difficult to generate....like a winter-weary car, it cries out for a Spring Tune Up.... new sparkplugs and points....new oil and air filters... a resurgence of power.

Among sports car lovers, a tune-up is enough to turn on a variety of ecstatic mental vibrations. The engineering skill and process of turning on a car is well understood and greatly appreciated....but when it comes to turning on people....our skills are often less precise and our uncertainty frequently monumental.

Many things turn on people -- music -- art -- sports -- recreation -- affection -- all seem to warm the heart and stir the emotions.

How do we "turn on teachers?" Where is the switch?

Historically the investigations scrutinizing the forces that drive people toward success have considered motivation power. Examinations of the dynamics of motivation have provided explanations ranging from basic factors such as drive -- needs -- interest and incentive to broad psychological -- social and philosophical foundations.

Our principal concern at this point is not a major investigation related to the elements of motivational complex, but how to put go power into people. We are engrossed with the problem of finding the switch that starts those energizing forces that produce a "souped-up" hi-octane performance. We are fascinated by the possibilities of retooling in-service training programs and providing maintenance services designed to assist teachers to perform with Varoom! and Zoom!

Our job analysis suggests the following questions:

What is a self-starting, hi-octane person and how do we produce one?

What does it mean to be supremely healthy and fully functional?

What are people like who have achieved high degrees of self realization -- psychological freedom and maximum fulfillment?

What happens when we free our minds of the common denominator of average and think in terms of highest rpm's?

No one has ever heard a sports car lover say, "I have an average car and I get average performance."

The passion for the ultimate in power packed performance is a consuming obsession among the auto buffs. Hours spent tinkering -- adjusting or paste waxing a high finish reflect love on the owner's part.

Can we, like the car buff, free our minds from closure associated with the average and move to productive openness related to our highest revolutions per minute?

In attempting to disengage our thinking from the low gear of average performance and shift to the high gear of ultimate performance....we must overcome the inertia and convert it into power.

As we move from "why" to "how" toward the finish line, helping teachers to become fully operative -- power packed people, it is urgent that we have a common goal. A goal which they perceive as important, realistic and obtainable.

Achievement of this goal, like winning a racing trophy, can portray the teacher as smooth-running, fully functional, psychologically free. The establishment of a strong self concept on the part of the teacher is imperative, and like an automobile needs continuous reinforcing or tuning up.

Reinforcing the self concept in a teacher is as vital as cleaning sparkplugs and points and re-adjusting the carburetor and timing in a car.

This process of refueling the self concept by rewarding -- exciting -- and challenging the individual revs him up to stretch and grow in an affective as well as a cognitive way.

It means helping teachers identify with others -- with a feeling of belonging in a friendly, helpful manner.

Assisting teachers to work cooperatively with others and to increase the capacity of self acceptance.

Establishing and maintaining a value system that prizes openness and nurtures perception.

Mirroring one's self in a positive way through the actions and reactions of others.

Thus far our considerations have centered around self activating motives broadly classified as social and achievement motives designed primarily to strengthen the self concept. Among motives that may be used to tune up teachers are:

desire to affiliate with others
desire for warmth
desire for self confidence
desire to become self actualizing
desire for competence
desire to explore to try new things
desire to find out

The last two motives may be classified under the stimulus seeking concept and may be used when an attempt is made to encounter what is new and challenging.

When we compare mechanical engineering with human engineering one is astounded by the similarities, the precise diagnostic procedures and direct mechanical skills on the one hand and the broad generic concept of personal motivation on the other.

Considering this parallelism, like auto mechanics, it is vital in working with people that we use our best diagnostic instruments and our greatest personal skills.

If we move from abstract consideration and approach the practical aspects of motivational arousal, we will be in a better position to discuss the kinds of things we do in Cleveland to "turn teachers on."

In Cleveland we do five things:

1. Assist and encourage teachers in developing the self concept that they are professionally and personally "turned on."

2. Indicate with empathy and respect, that we are aware and willing to assist teachers in fulfilling their needs.

3. Assist teachers in developing effective teaching strategies.

4. Make the assumption that all behavior is learned -- changing behavior takes time -- but that it is worthwhile.

5. Establish the idea that professional and personal growth is important, rewarding and enhances the development of a strong self concept.

Our search for the switch that turns teachers on -- begins with our initial interview. The mirroring process also starts at this point. Every effort is made to reflect those attitudes and qualities that enhance the teacher's concept of self. Candidates are encouraged to regard themselves as fully functioning professionals. Opportunities are explained -- the challenge of personal stretching and growing is presented and advocated. The teacher is urged to increase his awareness and to sharpen his perception skills. Methodologies are discussed and teaching strategies are stressed. Teachers are encouraged to look ahead to future goals.

In addition to the initial interview, careful consideration is given to student teaching experience and whenever possible to initial assignment. We place each student teacher with one of our ablest professional teachers --a person who exemplifies those desirable qualities with which the student teacher can identify. During his internship administrative and supervisory help are available, but the teacher is provided with many opportunities to

develop strength of inner self;
gain professional competence;
increase awareness and perception;
develop empathy for gifted children and staff;
accept the challenge and opportunity for professional and personal growth

After a teacher has been employed by the Cleveland Board of Education and assigned to the Division of Major Work Classes, a pre-school briefing conference is held. This conference is a vital link in the process of locating the switch that turns teachers on. Usually the group is small, thus the discussion is informal and uses supportive systems of both verbal and non-verbal cueing intended to strengthen affective relationships. Program goals are carefully discussed. Methodologies are explained, and teaching strategies are explored. Opportunities and challenges are talked over and questions answered. Peer, as well as administrative and supervisory support, is emphasized. The worth of each teacher is highlighted and optimism is stressed. In-service opportunities are carefully pointed out using bulletins and the indirect approach associated with inspirational dissatisfaction.

A division meeting highlights the beginning of the new school year. Teachers are welcomed using among other expressions Jackie Gleason's "You are a beautiful group." Special assignments are made, such as becoming master teachers, serving as training teachers, and working on committees to prepare new guides and curriculum materials. Each June our teachers close the year with a Divisional fun dinner. This is strictly their show.

Frequently our teachers leave the Division through promotions or changes in administrative or supervisory assignments. As supervisors or principals, they are looking for the switch that turns teachers on. Imagine how helpful it is to work with a principal or a supervisor in a building who has had experience in the program -- believes in it -- and actively supports it.

LOOKING FOR THE SWITCH THAT TURNS TEACHERS ON is a series of challenging, meaningful, perplexing, but also rewarding, exciting and happy experiences.

One constant, however, that is an integral part of this search for the "turn on" switch is "love" ....

whether it is seen in the empathy and compassion shown during a crisis situation .... or the "just right" suggestion that sets off the chain reaction for achieving a particular goal .... that certain chemistry that can occur between supervisor and teacher .... principal and teacher .... parent and teacher .... or student and teacher is what makes the whole process more rewarding and worthwhile.

Thus when you go into a class and walk out with goose bumps, a high pulse rate, and very positive mental vibrations .... you have seen a teacher and a class that is "turned on." A class that reflects the same sheer ecstasy of a zooming car, "running on all fours," and "souped-up" with just a touch of love .... and that's what it's all about baby!

SLIDE MUSIC AND OUT